CRPL-F23

IONOSPHERIC DATA

ISSUED

JULY, 1946

PREPARED BY CENTRAL RADIO PROPAGATION LABORATORY
National Bureau of Standards
Washington, D.C.

On July 1, 1946, the Interservice Radio Propagation Laboratory ceased to exist as such. At that time the duties and functions of the IRPL were absorbed by the Central Radio Propagation Laboratory, established at the National Bureau of Standards on May 1, 1946, to act as an organization for centralizing and coordinating basic research and prediction service in the field of radio wave propagation.

The IRPL-F series, "Ionospheric Data", commencing with this issue, is known as the CRPL-F series. This issue bears the designation CRPL-F23.

CRPL-F 213 CENTRAL RADIO PROPAGATION LABORATORY
NATIONAL BUREAU OF STANDARDS
WASHINGTON, D.C.

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TERMINOLOGY AND SCALING PRACTICES

The symbols and terminology used in this report are those adopted by the International Radio Propagation Conference, and given in detail on pages 24 to 26 of the report IRPL-C61, "Report of International Radio Propagation Conference", and in the section on "Terminology", in reports IRPL-F1, 2, 3, 4, 5.

In the past, ionospheric conditions were summarized on a monthly basis by using average or mean values, for each hour of the day, for each month. However, following the recommendations of the International Radio Propagation Conference, held in Washington 17 April to 5 May 1944, beginning with data for 1 Jan. 1945, median values were used by IRPL wherever possible. Thus, median values are given for Washington, for all stations reporting directly to the CRPL, for the Canadian stations, and for all others sending in detailed tabulations to the CRPL, from which medians can be computed.

Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data existed.

The monthly median values used here are the values equaled or exceeded on half the days of the month at the given hour. The following

conventions are used in determining the medians for hours when no measured values are given because of equipment limitations and ionospheric irregularities. Symbols used are those given in the report referred to above, IRPL-C61.

a. For all ionospheric characteristics:
Values missing because of A, B, C or F (see terminology referred to above) are omitted from the median count.

b. For critical frequencies and virtual heights:
Values missing because of E are counted as equal to or less than the lower limit of the recorder.
Values missing because of D are counted as equal to or greater than the upper limit of the recorder.
Values missing because of G are counted:
1. For $f^{o}F2$, as equal to or less than $f^{o}F1$.
2. For $h'F2$, as equal to or greater than the median.
Values missing for any other reason are omitted from the median count.

c. For muf factors (M-factors):
Values missing because of G are counted as equal to or less than the median.
Values missing for any other reason are omitted from the median count.

d. For sporadic E (E_s):
Values of fE_s missing because no E_s reflections appeared, the equipment functioning normally otherwise, are counted as equal to or less than the lower limit of the recorder.
Values of fE_s missing for any other reason, and values of hEs missing for any reason at all, are omitted from the median count.

Beginning with data for November 1945, doubtful monthly median values for ionospheric observations at Washington, D. C., are indicated by parentheses, in accordance with the practice already in use for doubtful hourly values. The following are the conventions used to determine whether or not a median value is doubtful:

1. If only four values or less are available, no median value is computed, the data being considered insufficient.

2. For the F2 layer, if only five to nine values are available, the median is considered doubtful. The E and F1 layers are so regular in their characteristics that, so long as there are at least five values, the median is not considered as doubtful.

3. For all layers, if more than half of the values used to compute

the median are doubtful (either doubtful or interpolated), the median is considered doubtful.

It is expected that this practice will be of assistance in evaluating the monthly median Washington data.

The same conventions are used by the CRPL in computing the medians from tabulations of daily and hourly data for stations other than Washington, beginning with the tables in IRPL-F18.

MONTHLY AVERAGE AND MEDIAN VALUES OF IONOSPHERIC DATA

The ionospheric data given here in graphical and tabular form were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL predictions of radio propagation conditions. The following are the sources of the data:

Australian Council for Scientific and Industrial Research, Radio Research Board, Australia:
- Brisbane, Australia
- Canberra, Australia
- Cape York, Australia
- Hobart, Tasmania

British National Physical Laboratory, and Inter-Services Ionosphere Bureau:
- Slough, England
- Great Baddow, England
- Burghead, Scotland
- Capetown, Union of S. Africa
- Colombo, Ceylon
- Oslo, Norway
- Cairo, Egypt
- Falkland Is.

Canadian Radio Wave Propagation Committee:
- Churchill, Canada
- Ottawa, Canada
- St. John's, Newfoundland
- Prince Rupert, Canada
- Clyde, Baffin I.
- Victoria Beach, Canada
- Swan River, Manitoba (Mobile unit)
- The Pas, Manitoba (Mobile unit)

New Zealand Radio Research Committee:
- Kermadec Is.
- Christchurch (Canterbury University College Observatory)

New Zealand Radio Research Committee: (continued)
Campbell I.
Pitcairn I.
Rarotonga I.

South African Council for Scientific and Industrial Research:
Johannesburg, Union of S. Africa

Scientific Research Institute of Terrestrial Magnetism, Moscow, U.S.S.R.:
Bukhta Tikhaya, U.S.S.R.
Tomsk, U.S.S.R.
Sverdlovsk, U.S.S.R.
Moscow, U.S.S.R.
Leningrad, U.S.S.R.
Alma Ata, U.S.S.R.

Carnegie Institution of Washington (Department of Terrestrial Magnetism):
Christmas I.
Fairbanks, Alaska (University of Alaska, College, Alaska)
Maui, Hawaii
Trinidad, Brit. West Indies
Huancayo, Peru
Watheroo, W. Australia
Adak, Alaska

United States Army Signal Corps:
Leyte, Philippine Is.
Guam I.
Tokyo, Japan

National Bureau of Standards:
Washington, D. C.

Stanford University:
San Francisco, California

Louisiana State University:
Baton Rouge, Louisiana

University of Puerto Rico:
San Juan, P.R.

Harvard University:
Boston, Massachusetts

All India Radio (Government of India), New Delhi, India:
Bombay, India
Delhi, India
Madras, India
Peshawar, India

Radio Wave Research Laboratories, Central Broadcasting Administration:
Chungking, China
Peiping, China

National Wuhan University:
Loshan, China

The tables of "provisional data" give values (1) as reported either to the CRPL or other central laboratory by telephone or telegraph; or (2) which are reported in summary form by stations from which monthly ionospheric data for every day and every hour may normally be expected at a later date.

The tables and graphs of "final data" are correct for the values reported to the CRPL, but, because of variations in practice in the interpretation of records and scaling and manner of reporting of values, may at times give an [illegible] depiction of typical ionospheric characteristics at the station. Some of these errors are due to:

a. Differences in scaling records where spread echoes are present.

b. Omission of values where $f^{o}F2$ is less than or equal to $f^{o}F1$, leading to erroneously high values of monthly average or median values.

c. Omission of values where critical frequencies are less than the lower frequency limit of the recorder, also leading to erroneously high values of monthly average or median values.

These effects were discussed on pages 6 and 7 of the previous F-series reports, IRPL-F1, 2, 3, 4, and 5.

The dashed-line prediction curves of the graphs of ionospheric data are obtained from the predicted zero-muf contour charts of the CRPL-D series publications. Predictions for individual stations used to construct the charts may be more accurate than the values read from the chart since some smoothing of the contours is necessary to allow for the longitude effect within a zone.

Discrepancies between predicted and observed values are often ascribable to these effects.

IONOSPHERIC DATA FOR EVERY DAY AND HOUR

These data, observed at Washington, D.C., follow the scaling practices given in the report IRPL-C61, "Report of International Radio Propagation Conference", pages 36 to 39, and the median values are determined by the conventions given under "Terminology and Scaling Practices" above.

IONOSPHERE DISTURBANCES

Table 77 presents ionosphere character figures for Washington, D.C., during June 1946, as determined by the criteria presented in the report IRPL-R5, "Criteria for Ionospheric Storminess", together with American magnetic K-figures which are usually covariant with them.

Table 79 gives provisional radio propagation quality figures for North Atlantic and North Pacific areas, for 01 to 12 and 13 to 24 GCT, May 1946, compared with the CRPL daily radio disturbance warnings, which are primarily for the North Atlantic paths, the CRPL weekly radio propagation forecasts of probable disturbed periods, and the half-day American geomagnetic K-figures.

The radio propagation quality figures for the North Atlantic were prepared from radio traffic and ionospheric data reported to the CRPL, in the manner described in detail in report IRPL-R31, "North Atlantic Radio Propagation Disturbances October 1943 through October 1945", issued 1 Feb. 1946.

The radio propagation quality figures for the North Pacific were prepared from radio traffic and ionospheric data reported to the CRPL, in a manner similar to that of IRPL-R31. The master scale of IRPL-R31 was used to formulate conversion scales for the North Pacific reports. In the future the North Pacific radio propagation quality figures reported will be prepared from these revised conversion scales rather than, as hitherto, from the conversion scales of report IRPL-R13, "Ionospheric and Radio Propagation Disturbances, October 1943 through February 1945", issued 24 May 1945.

These radio propagation quality figures give a consensus of opinion of actual radio propagation conditions as reported by the half day over the two general areas. It should be borne in mind, however, that though the quality may be disturbed according to the CRPL scale, the cause of the disturbance is not necessarily known. There are many variables that must be considered. In addition to ionospheric storminess itself as the

cause, conditions may be reported as disturbed because of seasonal characteristics, such as are particularly evident in the pronounced day and night contrast over North Pacific paths during the winter months, or because of improper frequency usage for the path and time of day in question. Insofar as possible, frequency usage is included in rating the reports. Where the actual frequency usage is not shown in the report to the CRPL, it has been assumed that the report is made on the use of optimum working frequencies for the path and time of day in question. Since there is a possibility that all of the disturbance shown by the quality figures is not due to ionospheric storminess alone, care should be taken in using the quality figures in research correlations with solar, auroral, geomagnetic, or other data. Nevertheless, these quality figures do reflect a consensus of opinion of actual radio propagation conditions as found on any one half-day in either of the two general areas.

AMERICAN RELATIVE SUNSPOT NUMBERS

Table 80 presents the daily median values of relative sunspot numbers as reported by American observers. The reports have been reduced, by appropriate constants, approximately to the Zurich scale of relative sunspot numbers. The monthly relative sunspot number is the mean of the daily median values listed in the table.

IONOSPHERIC DATA FROM RUSSIAN STATIONS FOR THE SOLAR ECLIPSE OF 9 JULY, 1945

Figs. 76, 77, and 78 present ionospheric data observed at Moscow, Leningrad, and Sverdlovsk, all in the U.S.S.R., for the period 7 through 11 July 1945. The data are presented in the same form as data for this period from other stations, previously published in IRPL-F13, September 1945, and IRPL-F14, October 1945.

The time used for the Moscow graph is 30°E Meridian. The times used for the other two graphs were not specified, but were probably 30°E Meridian for Leningrad and 60°E Meridian for Sverdlovsk. The approximate percentage of totality at maximum eclipse, and the approximate times of beginning, maximum, and ending of eclipse, in Greenwich Civil Time, appear in the table below, for comparison.

The graph for Moscow shows a slight dip in the curve for $f^{o}F2$ occurring at about the time of the eclipse. No other effect that might be ascribed to the eclipse is evident on the graphs for the three stations.

Since, as in the previously published data, the random variation from day to day is as great as, or greater than the eclipse effects, no further conclusions can be drawn at this time concerning the effects of the eclipse on the ionosphere.

These data were furnished by the Scientific Research Institute of Terrestrial Magnetism, Moscow, U.S.S.R.

Location	Approximate time of Eclipse (GCT) Beginning	Maximum	Ending	Approximate percentage of total eclipse
Leningrad	13h 06 m	14h 13m	15h 14m	98%
Moscow	13h 17m	14h 23m	15h 24m	96%
Sverdlovsk	13h 24m	14h 22m	after sunset	87%

UNUSUAL IONOSPHERE RECORDS AT WASHINGTON, D. C., 21 MAY, 1946

The ionosphere records at Washington, D. C., showed an unusual phenomenon for this location during the period 0000 to 0130, 75°W. meridian time, on 21 May 1946. This was a disturbed period, both magnetically and ionospherically.

The records showed echoes returning from a height between the E and F regions, the traces showing the group retardation customarily shown as a critical frequency is approached.

Ionization similar to E_s, but at higher heights, is often observed at Washington during disturbed periods. This type of sporadic ionization sometimes occurs at F-layer heights. The occurrence from 0000 to 0130 on 21 May 1946 is unusual in that group retardation is shown, with definite indications of a critical frequency of about 1.2 Mc. This phenomenon occurs frequently in the auroral zone, but is very rarely observed at Washington, D. C., and then only during disturbed periods.

The records are reproduced in figures a, b, c, d, and e. From 0000 to 0100, interference by broadcasting stations permits only the extraordinary trace to be seen. The 0115 and 0130 records show the ordinary trace as well.

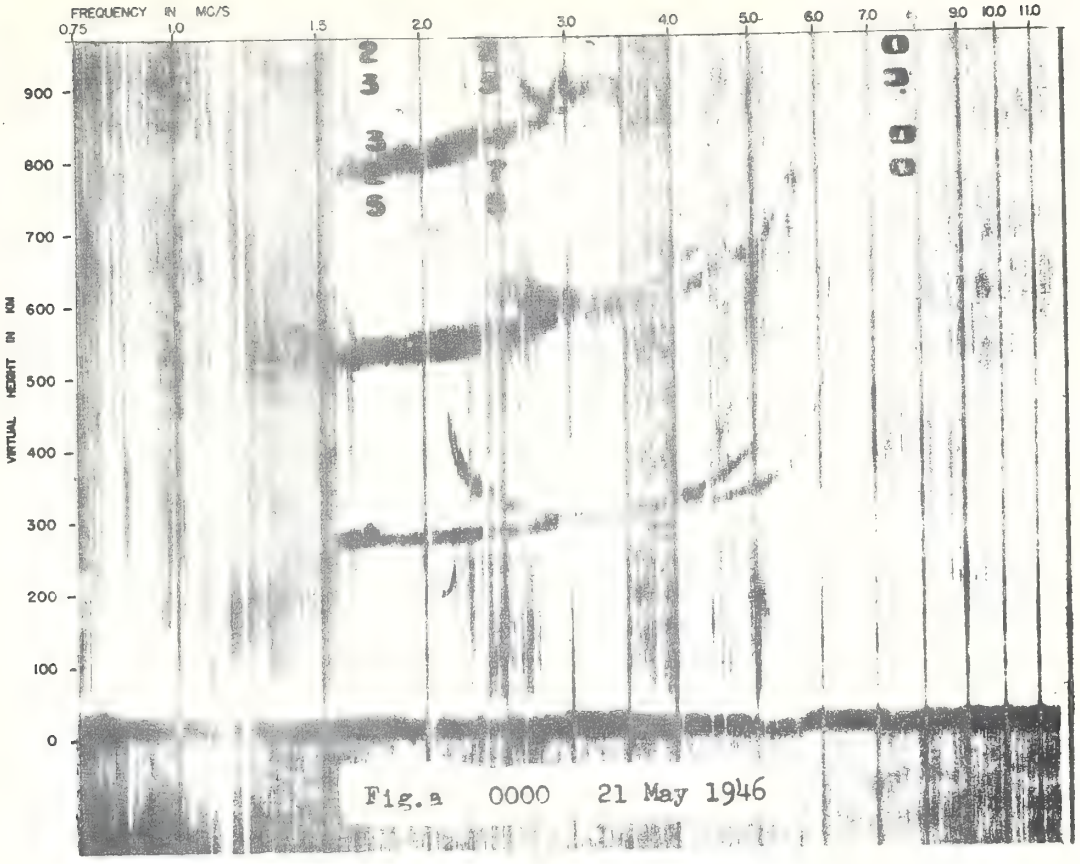


Fig. a 0000 21 May 1946

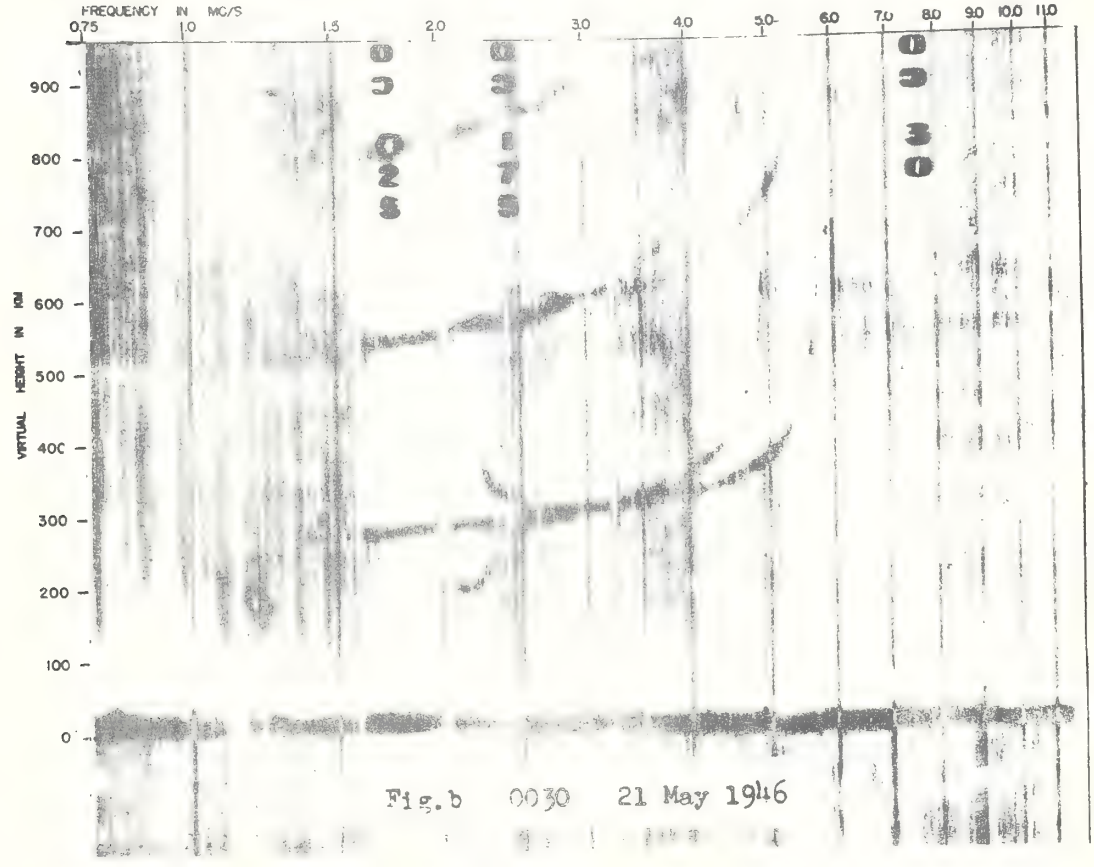


Fig. b 0030 21 May 1946

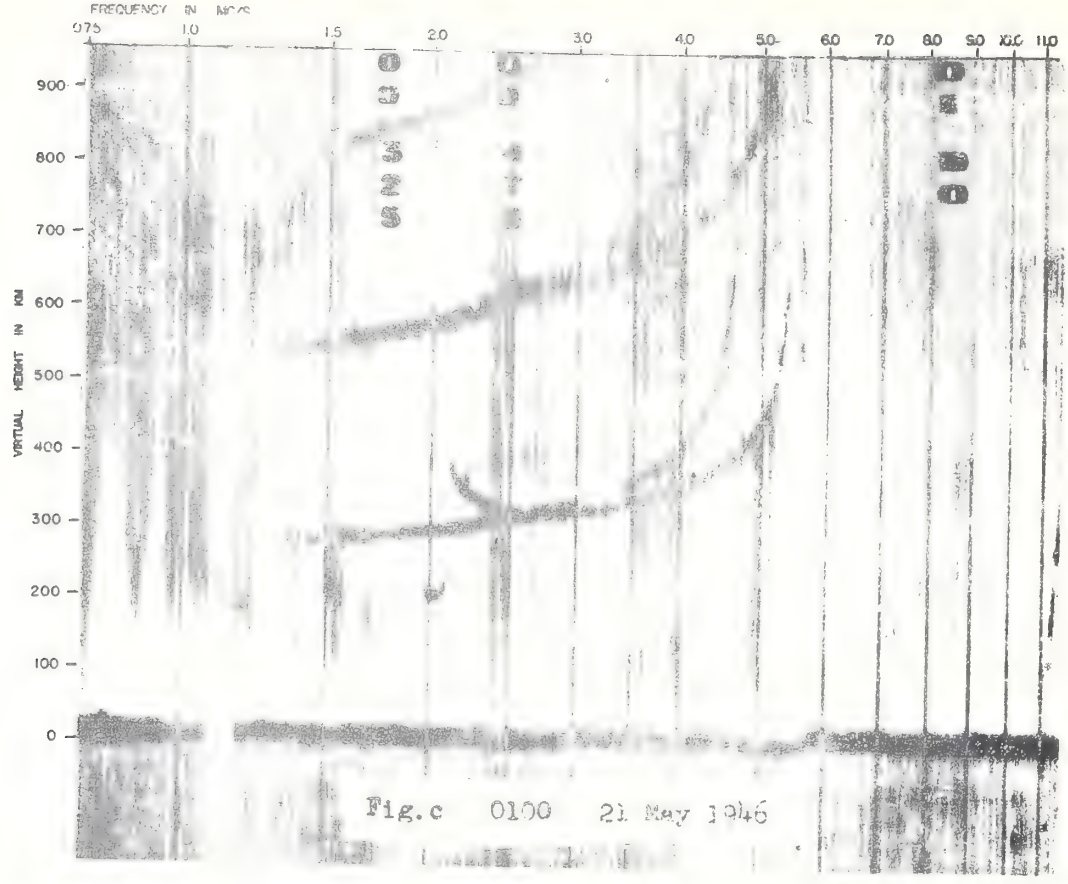


Fig.c 0100 21 May 1946

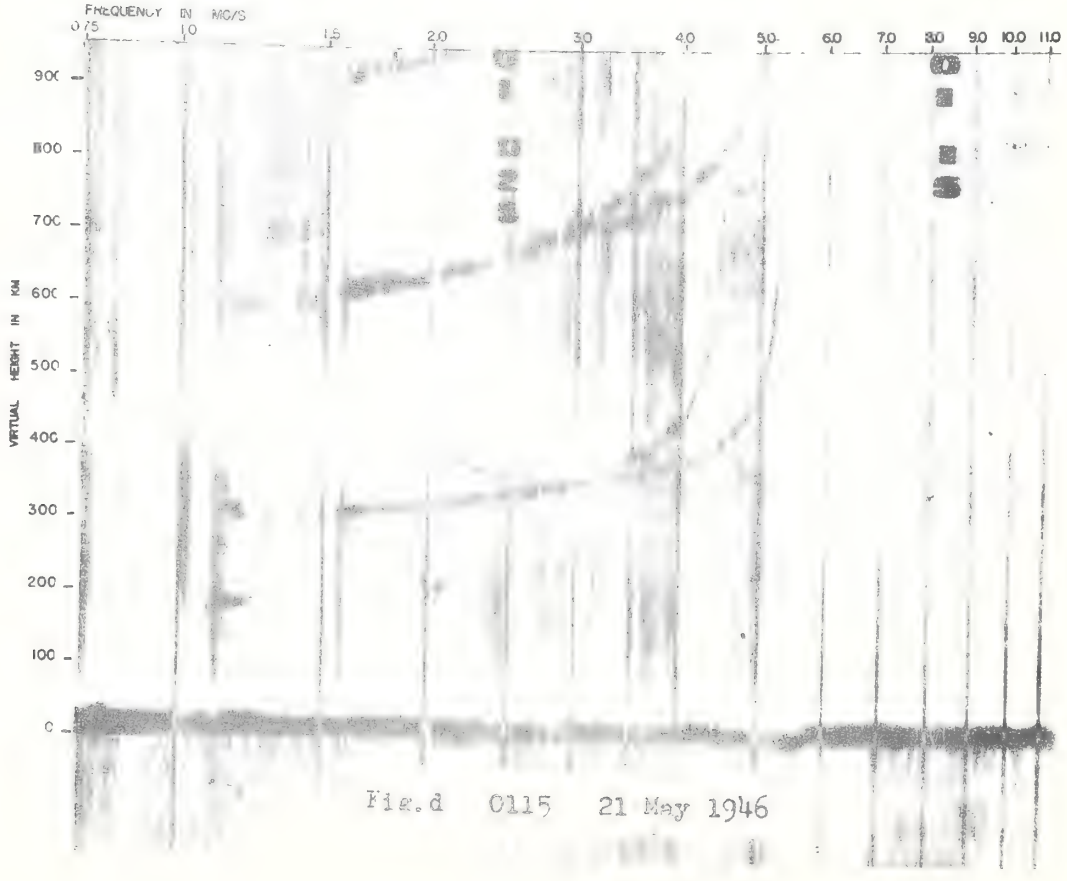
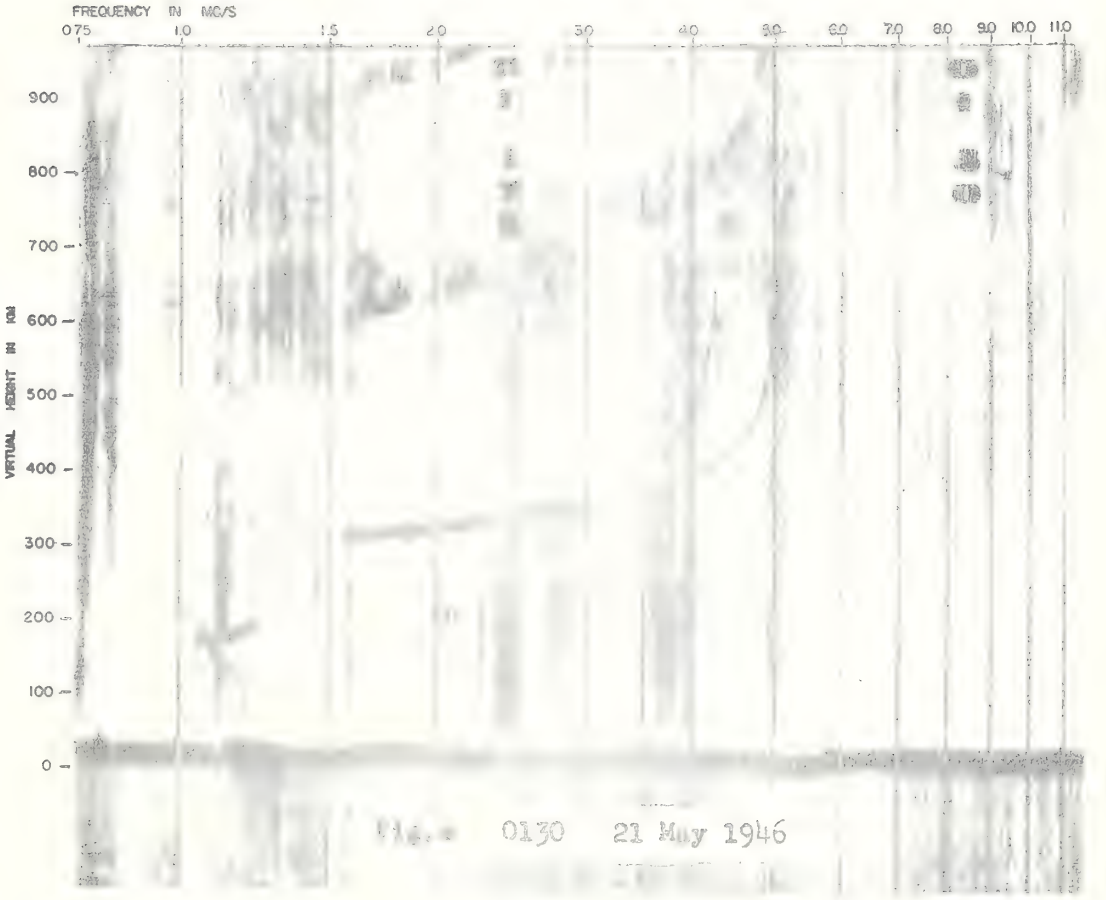


Fig.d 0115 21 May 1946


FREQUENCY IN MC/S
0.75
1.0
1.5
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
11.0
VIRTUAL HEIGHT IN KM
900
800
700
600
500
400
300
200
100
0
0130 21 May 1946

ERRATA

1. IRPL-F18, p. 11, last par.:
   Interchange the last word of line 4, "Phys.", with the seventh word of line 13, "Roy".

2. IRPL-F21, p. 12, last paragraph should read:
   The SID on 6 February indicated the absorption effects on various frequencies. The W8xal, 6080 kc, and XEWW, 9500 kc, intensities recorded at Sterling, Va., were so completely absorbed after the first SID at 1552 GCT that the second SID at 1956 GCT was barely able to be observed, while the higher frequencies showed almost complete recovery before the occurrence of the second SID. The third SID occurred later in the day from 2132-2205 GCT and was not intense enough to affect the paths eastward.

3. IRPL-F21, p. 13, top, second sentence should read:
   This will give us a measure of solar flare activity throughout the whole Greenwich day.

4. IRPL-F21, Table 47 should read at hours indicated:

Time	$f^{o}F2$
0000	5.6
0600	4.7
0700	5.8

   Corresponding changes in the graphs of Figs. 44 and 45 of same issue should be visualized.

5. IRPL-F21, Table 46:
   Insert "D" in $f^{o}F2$ column at 1300 and 1400.

6. IRPL-F22, p. 7, top:
   Insert title, "MONTHLY AVERAGE AND MEDIAN VALUES OF IONOSPHERIC DATA".

Table 1 (Provisional Data)

Clyde, Baffin I. (70.5°N, 68.6°W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.4						3.0
01		4.5						3.0
02		4.6						3.0
03		4.4						2.9
04		4.4						2.8
05		4.3						2.6
06		4.4						2.6
07		4.5						2.7
08		4.9						2.6
09		5.0						2.9
10		5.2						2.8
11		5.4						2.8
12		5.2						2.9
13		5.2						2.9
14		5.0						2.7
15		5.0						2.7
16		5.0						2.7
17		4.8						2.9
18		4.8						2.9
19		4.9						2.9
20		4.7						2.9
21		4.6						2.9
22		4.7						3.0
23		4.5						3.1

Time: 75.0°W.
Sweep: 2.0 Mc to 16.0 Mc in one minute.
Median values.

Table 2 (Provisional Data)

Fairbanks, Alaska (64.9°N, 147.8°W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	330	4.6				2.0	4.8	2.7
01	340	4.6				2.2	5.5	2.7
02	350	5.0				2.0	3.6	2.7
03	370	5.0	270	3.4		2.3	5.6	2.6
04	400	5.2	260	3.6		2.5	5.4	2.6
05	420	5.1	250	3.9		2.8	5.4	2.5
06	430	5.4	240	4.0		3.0	5.3	2.6
07	460	5.5	220	4.2		3.2	4.8	2.4
08	480	5.5	220	4.3		3.2	3.4	2.4
09	440	5.6	220	4.4		3.2	3.4	2.6
10	480	5.6	230	4.6		3.3	3.3	2.4
11	500	5.6	220	4.6		3.3	3.6	2.6
12	470	5.6	220	4.7		3.3	3.5	2.5
13	440	5.8	220	4.8		3.3	3.3	2.6
14	450	5.8	230	4.7		3.3	3.3	2.6
15	460	5.8	230	4.6		3.2	3.3	2.5
16	400	5.8	230	4.5		3.0	3.1	2.7
17	380	5.8	240	4.4		2.9	3.3	2.7
18	330	5.8	240	4.0		2.7	3.3	2.8
19	320	5.6	250	4.0		2.5	5.2	2.8
20	280	5.6	260	3.3		2.1	3.6	2.8
21	280	5.3				1.9	4.4	2.9
22	320	5.3				1.6	4.4	2.8
23	320	4.8					3.9	2.8

Time: 150.0°W.
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 3 (Provisional Data)

Prince Rupert, Canada (54.3°N, 130.3°W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.4						3.0
01		4.0						3.0
02		3.5						2.9
03		3.3						3.0
04		3.5						3.0
05		4.4						2.9
06		4.9						2.8
07		5.1						2.8
08		5.5						2.8
09		5.5						2.8
10		5.5						2.7
11		5.7						2.8
12		5.9						2.9
13		5.9						2.8
14		5.8						2.8
15		5.9						2.8
16		6.0						2.9
17		5.8						3.0
18		5.9						3.0
19		5.9						3.1
20		5.9						3.2
21		6.0						3.2
22		5.5						3.1
23		5.3						3.1

Time 120.0°W.
Sweep: Manual operation.
Median values.

Table 4 (Provisional Data)

Adak, Alaska (51.9°N, 176.6°W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	6.2						2.7
01	270	5.8						2.7
02	290	5.4						
03	310	4.8						2.7
04	340	5.2						2.7
05	410	5.6						2.6
06	380	6.0	220	4.2		2.9	3.0	2.6
07	380	6.4	220	4.5		3.2	4.0	2.7
08	520	5.7	200	4.8		3.4	4.4	2.6
09	520	6.0	200	4.9		3.5	4.8	2.5
10	400	6.8		5.2		3.5	5.0	2.7
11	400	6.7		5.2			5.8	2.8
12	380	6.4	200	5.0		3.6	4.0	2.8
13	400	6.6	200	5.0		3.6	3.9	2.8
14	350	6.2	200	5.0		3.6	4.2	2.6
15	370	6.4	220	4.9		3.4	3.7	2.8
16	370	6.3	220	4.8		3.0	4.0	2.8
17	330	6.6	230	4.6		2.8	3.6	2.9
18	290	6.6					3.6	2.9
19	280	6.6					3.8	2.9
20	270	6.8					2.5	2.9
21	280	7.0					3.0	2.8
22	270	7.0					2.4	2.8
23	280	6.9					1.8	2.7

Time: 180.0°W.
Sweep: Manual operation.
Median values.

Table 5 (Provisional Data)

St. John's, Newfoundland (47.6°N, 52.7°W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.6						3.0
01		5.6						3.0
02		4.4						3.0
03		5.2						3.0
04		4.5						3.2
05		4.2						3.3
06		4.8						3.3
07		5.4						3.4
08		4.8						3.3
09		5.7						3.3
10		6.0						3.3
11		6.2						3.2
12		6.2						3.1
13		6.5						3.1
14		6.3						3.1
15		6.5						3.0
16		6.6						3.1
17		7.1						3.1
18		7.0						3.1
19		7.2						3.2
20		7.2						3.2
21		7.2						3.1
22		6.8						3.1
23		6.4						3.0

Time: 52.5°W.
Sweep: Manual operation.
Median values.

Table 6 (Provisional Data)

Ottawa, Canada (45.5°N, 75.8°W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.7						2.8
01		4.2						2.9
02		3.6						2.9
03		3.1						2.9
04		3.2						2.9
05		3.6						3.0
06		4.5						2.9
07		5.3						3.0
08		5.2						2.7
09		5.7						2.7
10		5.6						2.7
11		6.0						2.7
12		6.1						2.5
13		6.5						2.6
14		6.5						2.6
15		6.4						2.6
16		6.8						2.6
17		7.0						2.7
18		7.1						2.7
19		7.1						2.7
20		7.2						2.8
21		6.9						2.8
22		6.2						2.8
23		5.4						2.8

Time: 75.0°W
Sweep: 1.93 Mc to 13.5 Mc. Manual operation.
Median values.

Table 7 (Provisional Data)

Boston, Massachusetts (42.4°N, 71.2°W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.5						2.6
01		5.2						2.6
02		4.5						2.6
03		4.1						2.7
04		4.3						2.7
05		4.6						2.8
06		4.7						2.9
07		5.5						2.8
08		5.9						2.8
09		6.4						2.7
10		6.5						2.8
11		6.5						2.6
12		6.6						2.7
13		6.8						2.6
14		6.6						2.7
15		6.7						2.6
16		6.6						2.7
17		6.6						2.7
18		6.8						2.7
19		6.9						2.7
20		6.9						2.7
21		6.5						2.7
22		6.7						2.6
23		6.0						2.5

Time: 75.0°W
Sweep: 0.85 Mc to 13.75 Mc in one minute.
Median values.

Table 8 (Provisional Data)

San Francisco, California (37.4°N, 122°2 W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.3						2.6
01		5.0						2.6
02		4.8						2.6
03		4.7						2.6
04		4.3						2.6
05		4.2						2.8
06		5.2						2.8
07		5.8						2.7
08		6.5						2.8
09		6.6						2.6
10		6.6						2.7
11		7.0						2.7
12		7.2						2.7
13		6.8						2.7
14		7.1						2.8
15		7.0						2.8
16		6.6						2.8
17		6.6						2.9
18		6.4						2.9
19		7.0						3.0
20		6.7						3.0
21		6.6						2.8
22		6.0						2.8
23		5.4						2.8

Time: 120.0°W
Sweep: 0.8 Mc to 12.0 Mc in six minutes. Record centered on the hour.
Median values.

Table 9 (Provisional Data)

Baton Rouge, Louisiana (30.5°N, 91.2°W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.7						2.8
01		5.6						2.9
02		5.1						2.9
03		4.9						2.8
04		4.6						2.8
05		4.7						2.9
06		5.5						3.0
07		6.2						3.0
08		6.4						2.9
09		6.4						2.8
10		6.7						2.8
11		7.0						2.8
12		7.1						2.8
13		7.5						2.8
14		7.7						2.7
15		7.5						2.8
16		7.5						2.8
17		7.5						2.9
18		7.3						2.9
19		7.5						3.0
20		6.6						3.1
21		6.4						3.0
22		6.1						2.9
23		5.7						2.9

Time: 90.0°W
Sweep: 1.9 Mc to 6.7 Mc in three minutes, thirty seconds.
Median values.

Table 10 (Provisional Data)

Maui, Hawaii (20.8°N, 156.5 W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	300	7.4						2.7
01	300	7.3						2.6
02	300	7.4						2.8
03	300	7.1						2.7
04	300	6.4						2.8
05	310	6.0						2.7
06	300	6.0	300					2.6
07	260	6.9	250	4.3		2.6		2.7
08	350	7.4	250	4.8		3.1		2.4
09	410	7.8	250	5.0				2.4
10	440	9.1	220	5.2		3.8		2.4
11	450	9.6	220	5.2				2.4
12	420	10.2	220	5.3				2.5
13	400	10.9	230	5.3				2.5
14	400	11.4	240	5.2				2.6
15	370	12.2	220	5.1				2.7
16	350	12.2	240	4.9				2.7
17	320	12.0	250	4.8			4.4	2.8
18	290	12.0	250				3.8	2.9
19	250	10.4						2.9
20	270	9.4						2.8
21	280	9.9						2.7
22	430	10.8						2.6
23	300	8.1						2.7

Time: 150.0°W
Sweep: 2.2 Mc to 16.0 Mc in one minute.
Median values.

Table 11 (Provisional Data)

Trinidad, Brit. West Indies (10.6°N, 61.2°W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	[illegible]						[illegible]
01	260	[illegible]						[illegible]
02	260	[illegible]						[illegible]
03	260	[illegible]						[illegible]
04	260	[illegible]						[illegible]
05	250	[illegible]						[illegible]
06	250	6.[illegible]					2.6	3.0
07	240	7.2	220	[illegible]		2.6	3.4	3.2
08	280	7.[illegible]	220	5.0		3.2	4.4	2.9
09	330	8.[illegible]	210	5.1		3.4	4.6	2.7
10	360	9.8	220	5.2		3.7	4.8	2.6
11	400	10.8	220	5.3		3.9	5.0	2.6
12	370	10.6	210	5.2		4.0	5.0	2.7
13	340	11.1	220	5.2		4.0	5.1	2.7
14	340	11.4	220	5.2		3.9	5.0	2.7
15	330	11.5	220	5.2		3.6	5.1	2.8
16	310	11.3	220	5.0		3.6	5.4	2.8
17	300	10.7	230	4.5		2.9	4.5	2.9
18	270	10.3				2.2	4.7	2.6
19	280	10.2					4.2	2.7
20	300	10.4					3.1	2.7
21	280	10.5					2.8	2.8
22	270	10.3					2.4	2.9
23	260	10.4					2.0	3.0

Time: 60.0°W
Sweep: Manual operation.
Median values.

Table 12 (Provisional Data)

Christmas Island (1.9°N, 157.3 W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	7.8					2.4	2.9
01	260	8.1					2.4	2.9
02	260	7.8					2.2	2.9
03	260	7.6					2.1	3.0
04	240	6.8					2.1	2.9
05	230	5.5					2.1	3.4
06	240	4.6					2.1	3.2
07	250	6.3				2.5	3.5	2.9
08	230	7.8				3.0	5.2	2.8
09	220	8.3	230			3.5	5.6	2.6
10	320	9.0	220	5.0		3.7	5.9	2.4
11	340	9.0	210	5.1		3.8	8.0	2.4
12	360	9.2	210	5.2			8.2	2.4
13	350	9.4	210	5.2			8.5	2.3
14	360	9.6		5.0		3.0	8.5	2.3
15	350	10.0	210	5.0			8.6	2.4
16	300	9.8	210			3.3	8.5	2.4
17	280	9.6				3.0	6.8	2.4
18	260	9.4				2.3	4.9	2.3
19	300	9.0					3.5	2.4
20	360	8.4					2.0	2.4
21	350	8.1					2.0	2.5
22	320	8.3					2.4	2.5
23	300	8.2					2.5	3.0

Time: 150.0°W
Sweep: 1.5 Mc to 13.0 Mc in one minute, thirty seconds.
Median values.

Table 13 (Provisional Data)

Watheroo, W. Australia (30.3°S, 115.9°E) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMe	F2-M3000
00		3.5						2.9
01		3.5						2.9
02		3.8						3.0
03		3.7						3.0
04		3.6						3.0
05		3.2						3.1
06		3.2						3.2
07		5.4						3.3
08		7.7						3.4
09		8.6						3.4
10		8.8						3.4
11		9.1						3.3
12		9.3						3.2
13		9.4						3.2
14		9.7						3.2
15		9.8						3.2
16		9.2						3.2
17		8.0						3.2
18		6.2						3.2
19		4.7						3.1
20		3.6						3.2
21		3.2						3.0
22		3.3						2.9
23		3.6						2.8

Time: Local.
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 14 (Provisional Data)

Leyte, Philippine Is. (11.0°N, 125.0°E) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMe	F2-M3000
00		10.3					3.4	2.9
01		9.8					3.5	3.2
02		8.6					2.6	3.2
03		7.4					2.5	3.1
04		6.0					< 2.5	3.2
05		4.8					2.6	3.1
06		4.2					< 2.5	3.0
07		7.6		3.2		2.3	4.2	3.0
08		9.7		4.1		3.1	5.5	2.8
09		10.3		4.9		3.6	6.5	2.6
10		10.1		5.4		3.8	7.0	2.4
11		10.2		5.5		4.0	7.8	2.4
12		10.3		5.8		4.0	7.5	2.4
13		10.5		5.6		4.1	7.5	2.3
14		10.8		5.5		4.0	6.5	2.3
15		11.2		5.3		3.9	6.3	2.3
16		11.3		5.1		3.7	6.4	2.4
17		11.8		4.4		3.3	5.8	2.5
18		11.6		3.4		2.6	6.3	2.5
19		11.3					4.7	2.5
20		10.2					3.5	2.4
21		9.7					< 2.5	2.5
22		9.9					3.5	2.6
23		10.0					3.1	2.7

Time: 135.0°E.
Sweep: Manual operation.
Median values.

Table 15 (Provisional Data)

Christmas Island (1.9°N, 157.3°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMe	F2-M3000
00	250	9.6					2.7	3.1
01	250	9.4					2.6	3.0
02	250	9.2					2.6	3.0
03	330	9.6					2.6	3.0
04	230	7.6					2.3	3.1
05	220	6.2					2.1	3.1
06	250	5.6					2.1	2.8
07	260	6.7				2.4	3.7	2.9
08	240	8.6				3.1	6.2	2.7
09	220	9.5				3.5	7.0	2.6
10	200	10.0	220	5.0			7.7	2.5
11	310	9.8	220	5.0			8.4	2.5
12	320	10.2	210	5.0			8.5	2.5
13	320	10.5	220	5.1			8.6	2.4
14	340	10.5	210	5.1			8.7	2.3
15	320	10.6	210	5.0			8.8	2.4
16	220	10.8	220	4.5		3.4	8.6	2.3
17	230	10.1				3.0	7.5	2.4
18	260	9.9				2.4	5.2	2.4
19	310	9.5					3.0	2.4
20	340	9.0					8.1	2.4
21	330	8.8					2.5	2.4
22	300	9.2					2.5	2.5
23	280	9.6					2.6	2.9

Time: 150.0°W
Sweep: 1.5 Mc to 13.0 Mc in one minute, thirty seconds.
Median values.

Table 16 (Provisional Data)

Johannesburg, South Africa (26.2°S, 28.0°E) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMe	F2-M3000
00		2.8						2.9
01		3.0						3.0
02		3.0						3.0
03		3.0						3.1
04		2.9						3.2
05		2.9						3.1
06		3.0						3.1
07	220	6.2						3.4
08	220	8.3	210	3.2	100	2.6		3.5
09	230	9.0	210	3.7	100	3.0		3.3
10	240	10.0	210	4.3	100	3.4		3.3
11	250	10.2	200	4.4	100	3.5		3.2
12	250	10.7	200	4.5	100	3.5		3.1
13	250	10.5	200	(4.4)	100	3.6		3.1
14	250	10.7	200	4.3	100	3.4		3.1
15	250	10.7	210	4.0	100	3.1		3.1
16	230	10.4	210	3.1	100	2.7	3.0	3.2
17	220	9.8						3.3
18	210	8.0						3.3
19	(200)	5.7						3.3
20		4.5						3.4
21		3.5						3.5
22		3.3						3.3
23		2.9						3.0

Time: 30.0°E
Sweep: 2.0 Mc to 15.0 Mc in 8 seconds.
Median values.

Table 17 (Provisional Data)

Watheroo, W. Australia (30.3°S, 115.9°E) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00		3.6						2.8
01		3.6						2.8
02		3.8						2.8
03		3.6						2.9
04		3.5						3.0
05		3.1						3.0
06		3.0						2.9
07		6.2						3.4
08		8.1						3.4
09		9.4						3.2
10		10.5						3.2
11		10.4						3.2
12		10.5						3.1
13		10.6						3.0
14		10.6						3.1
15		10.4						3.1
16		10.1						3.1
17		8.9						3.2
18		6.3						3.2
19		4.7						3.1
20		4.0						3.0
21		3.7						3.0
22		3.6						2.9
23		3.7						2.8

Time: Local
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median Values.

Table 18 (Provisional Data)

Bukhta Tikhaya, U.S.S.R. (80.3°N, 52.7°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00								
01								
02								
03								
04								
05								
06		6.6						
07								
08		6.8						
09								
10		6.8						
11								
12								
13								
14								
15		6.9						
16								
17								
18		6.4						
19								
20		5.9						
21		5.6						
22								
23								

Time: 60.0°E
Sweep: 1.5 Mc to 9.5 Mc in five to ten minutes. Manual operation.
Average values.

Table 19 (Provisional Data)

Burghead, Scotland (57.7°N, 3.5°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00		5.6						
01		5.3						
02		5.1						
03		4.9						
04		4.7						
05		4.7						
06		5.2						
07		5.8						
08		6.2						
09		6.7						
10		6.9						
11		7.5						
12		7.8						
13		7.7						
14		7.8						
15		7.8						
16		7.8						
17		7.6						
18		7.5						
19		7.5						
20		7.2						
21		6.8						
22		6.3						
23		5.8						

Time: 0.0°
Sweep: 1.0 Mc to 13.0 Mc. Manual operation.
Average values.

Table 20 (Provisional Data)

Sverdlovsk, U.S.S.R. (56.7°N, 61.1°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00		3.9						
01		4.6						
02		5.3						
03		6.4						
04		7.0						
05		7.9						
06		8.7						
07		9.0						
08		9.1						
09		9.3						
10		8.9						
11		8.5						
12		8.6						
13		8.6						
14		8.0						
15		7.9						
16		7.5						
17		6.7						
18		5.9						
19		5.4						
20		5.1						
21		4.8						
22		4.5						
23		4.1						

Time: 60.0°E
Sweep: 1.5 Mc to 14.0 Mc in five to thirteen minutes. Manual operation.
Average values.

Table 21 (Provisional Data)

Tomsk, U.S.S.R. (56.5°N, 84.9°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.1						
01		6.0						
02		6.8						
03		8.0						
04		8.4						
05		9.0						
06		9.0						
07		9.1						
08		9.3						
09		9.0						
10		8.8						
11		8.4						
12		8.2						
13		8.0						
14		7.6						
15		7.2						
16		6.6						
17		5.8						
18		5.4						
19		5.0						
[illegible]		4.7						
21		4.4						
22		4.1						
23		4.4						

Time: 90.0°E
Sweep: 1.2 Mc to 10.0 Mc in five to ten minutes. Manual operation.
Average values.

Table 22 (Provisional Data)

Moscow, U.S.S.R. (55.9°N, 37.3°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.0						
01		3.8						
02		3.9						
03		4.8						
04		5.6						
05		6.3						
06		7.1						
07		8.2						
08		8.7						
09		9.0						
10		9.0						
11		8.6						
12		8.4						
13		8.5						
14		8.4						
15		8.2						
16		8.4						
17		8.1						
18		7.3						
19		6.2						
20		5.5						
21		5.3						
22		5.0						
23		4.5						

Time: 30.0°E
Sweep: 1.8 Mc to 10.0 Mc in ten minutes. Manual operation.
Average values.

Table 23 (Provisional Data)

Burghead, Scotland (57.7°N, 3.5°W) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.7						
01		4.6						
02		3.8						
03		3.9						
04		3.8						
05		4.0						
06		4.2						
07		5.0						
08		5.7						
09		6.2						
10		6.3						
11		6.6						
12		7.0						
13		7.4						
14		7.7						
15		7.5						
16		7.2						
17		7.0						
18		6.5						
19		6.8						
20		6.1						
21		5.4						
22		5.0						
23		4.5						

Time: 0.0°
Sweep: 1.0 Mc to 13.0 Mc. Manual operation.
Average values.

Table 24 (Provisional Data)

Moscow, U.S.S.R. (55.9°N, 37.3°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.3						
01		3.2						
02		2.9						
03		2.8						
04		4.2						
05		5.8						
06		7.0						
07		8.1						
08		9.2						
09		9.6						
10		10.1						
11		10.0						
12		10.0						
13		9.5						
14		9.2						
15		8.6						
16		8.2						
17		7.0						
18		5.3						
19		4.6						
20		4.3						
21		4.1						
22		3.7						
23		3.5						

Time: 30.0°E
Sweep: 1.8 Mc to 10.0 Mc in ten minutes. Manual operation.
Average values.

Table 25

Washington, D. C. (39.0°N, 77.5°W) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00	290	5.6					3.4	2.7
01	280	5.3					2.9	2.8
02	270	4.9					2.9	2.8
03	275	4.4					2.9	2.7
04	280	4.0					2.6	2.8
05	280	4.1	260		120	(1.6)	3.7	2.8
06	340	5.0	230	3.8	110	(2.3)	4.0	2.8
07	350	5.5	230	4.3	110	(2.8)	4.2	2.9
08	370	6.0	210	4.6	110	(3.2)	4.6	2.8
09	380	(6.2)	210	4.8	110	3.4	5.2	2.7
10	430	6.2	210	5.0	110	(3.5)	5.1	2.7
11	390	(6.3)	200	5.0	110	(3.6)	4.2	(2.8)
12	430	6.3	210	5.1	110	(3.8)	4.2	2.8
13	420	6.2	210	5.1	110	(3.7)	4.0	2.7
14	410	6.4	210	5.0	110	(3.7)	3.8	2.7
15	380	6.7	220	5.0	110	(3.6)	3.8	2.7
16	370	6.8	220	4.7	110	(3.4)	3.7	2.7
17	340	6.7	220	4.5	110	(3.1)	3.5	2.8
18	300	6.9	230	3.8	110	(2.5)	3.7	2.9
19	260	7.0			120	(1.8)	3.7	2.9
20	250	7.0					3.2	2.9
21	270	(6.8)					4.0	(2.8)
22	280	(6.2)					4.0	(2.8)
23	280	5.9					3.5	2.8

Time: 75.0°W.
Sweep: 0.75 Mc to 11.5 Mc in 3.4 minutes, supplemented by 0.8 Mc to 14.0 Mc in two minutes.
Median values.

Table 26 (Supersedes Table 2, IRFL-F22)

Fairbanks, Alaska (64.9°N, 147.8°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00	295	4.4					5.2	2.7
01	310	4.8					4.5	2.7
02	310	4.8				1.7	5.4	2.6
03	340	5.0				2.0	4.5	2.8
04	380	5.1	280	3.3		2.2	4.0	2.6
05	450	5.0	260	3.8		2.5	4.8	2.5
06	450	5.2	250	3.9		2.8	4.0	2.5
07	440	5.5	240	4.2		2.9	3.5	2.5
08	440	5.6	230	4.2		3.0	3.2	2.5
09	450	5.6	230	4.4		3.2	3.1	2.5
10	430	5.8	238	4.5		3.3	3.2	2.5
11	440	5.8	230	4.6		3.3	3.2	2.6
12	440	5.8	232	4.6		3.3	3.3	2.5
13	435	6.0	230	4.6		3.3	3.0	2.6
14	435	5.9	226	4.6		3.2	3.2	2.6
15	430	6.0	238	4.5		3.1	3.0	2.7
16	400	6.0	240	4.3		3.0	3.2	2.6
17	395	5.5	248	4.1		2.8	3.0	2.7
18	300	5.5	260	3.9		2.5	3.0	2.8
19	275	5.3				2.3	3.5	2.8
20	275	5.4				2.0	3.3	2.9
21	280	4.8				1.8	3.2	2.8
22	290	4.5				1.6	4.0	2.8
23	300	4.0				1.5	4.7	2.8

Time: 150.0°W.
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median Values.

Table 27 (Supersedes Table 1, IRFL-F22)

Churchill, Canada (58.8°N, 94.2°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00	310	4.4					4.6	(2.7)
01	300	4.5					4.2	(2.9)
02	295	4.6					3.6	2.9
03	295	4.2					3.5	3.0
04	310	4.2					3.5	2.9
05	330	4.4	280	3.6	130	2.8	3.5	3.0
06	360	4.5	250	3.8	130	2.9	3.6	2.8
07	420	5.0	230	4.3	120	3.0	3.4	2.7
08	420	5.5	240	4.4	120	3.2	3.7	2.7
09	460	5.2	240	4.6	120	3.2	3.6	2.6
10	460	5.4	230	4.6	120	3.3		2.7
11	470	5.6	230	4.8	120	3.5		2.7
12	450	5.8	240	4.7	120	3.5		2.6
13	450	6.0	230	4.8	120	3.4		2.6
14	425	6.4	230	4.7	120	3.4		2.6
15	400	6.2	230	4.6	120	3.4		2.7
16	370	6.2	240	4.5	120	3.3		2.7
17	340	6.3	240	4.4	120	3.1		2.9
18	350	6.0	250	4.1	130	3.0		2.8
19	330	5.8	280	3.6	130	2.8	3.8	2.9
20	340	5.0		3.1	130	2.8	4.6	2.8
21	330	5.0					5.5	(2.8)
22	300	4.8					8.4	(2.9)
23	295	4.5					4.7	(2.8)

Time: 90.0°W.
Sweep: 2.0 Mc to 16.0 Mc in one minute.
Median values.

Table 28 (Supersedes Table 4, IRFL-F22)

Prince Rupert, Canada (54.3°N, 130.3°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00	230	4.3					3.7	3.0
01	270	4.2					3.0	2.9
02	280	4.0					2.2	2.8
03	270	3.8					2.6	2.9
04	275	3.7					3.0	2.9
05	290	4.2	235	3.1	110	1.7	2.2	2.9
06	350	4.7	210	3.6	100	2.2	2.8	2.9
07	395	5.0	200	4.0	90	2.5	3.3	2.8
08	390	5.3	190	4.3	90	2.8	3.5	2.8
09	390	5.5	180	4.4	80	3.1	3.8	2.8
10	390	5.8	170	4.5	80	3.3	3.8	2.8
11	390	6.0	170	4.6	80	3.4	3.9	2.8
12	380	6.3	170	4.8	80	3.4	3.8	2.9
13	390	5.9	170	4.8	80	3.4	3.8	2.8
14	390	5.9	180	4.7	80	3.4	3.8	2.8
15	360	6.0	180	4.7	80	3.3		2.9
16	355	6.0	190	4.6	90	3.2	3.4	3.0
17	310	6.1	190	4.5	90	3.0		3.0
18	280	6.1	200	4.2	90	2.7	2.8	3.1
19	250	6.2	210	3.7	90	2.3	2.8	3.2
20	220	6.2			110	1.9	2.3	3.2
21	215	6.2					2.4	3.2
22	210	5.6					3.1	3.1
23	220	5.0					3.3	3.1

Time: 120.0°W
Sweep: Manual operation.
Median values.

Table 29 (Supersedes Table 7, IRPL-F22)

Ottawa, Canada (45.5°N, 75.8°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	340	4.0						2.7
01	330	3.8						2.9
02	340	3.4						2.9
03	330	3.4						3.0
04	340	3.3						2.9
05	300	3.9						2.9
06	275	4.4		3.7	140	2.5		2.9
07	300	5.0	260	4.2	130	2.8		2.8
08	385	5.2	250	4.6	120	3.0		2.8
09	435	5.2	230	4.8	120	3.2		2.7
10	470	5.3	220	5.0	120	3.4		2.7
11	420	5.3	220	5.0	120	3.5		2.7
12	440	5.5	220	5.0	120	3.4		2.7
13	480	5.8	230	5.2	120	3.5		2.6
14	450	5.7	240	5.0	120	3.4		2.6
15	440	6.0	240	5.0	120	3.4		2.6
16	385	6.2	240	4.9	120	3.3		2.6
17	370	6.2	260	4.5	130	3.0		2.7
18	325	6.2	280	4.2	130	2.7		2.7
19	280	6.0			140	2.7		2.8
20	290	6.0			130	2.5		2.8
21	300	5.8						2.7
22	300	5.4						2.6
23	330	4.8						2.8

Time: 75.0°W.
Sweep: 1.93 Mc to 13.5 Mc. Manual operation.
Median values.

Table 30 (Supersedes Table 8, IRPL-F22)

Boston, Massachusetts (42.4°N, 71.2°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	300	5.1						2.6
01	300	4.7						2.6
02	300	4.5						2.6
03	288	4.0						2.7
04	295	3.7			140	1.5		2.8
05	295	4.2			138	1.9		2.9
06	275	4.6						3.0
07	305	5.4		4.3				3.0
08	350	6.1	252	4.7				2.9
09	(350)	(6.1)	250	4.8				(3.0)
10	350	(6.3)	220	4.7				(2.8)
11	(345)	(6.4)	200					(2.8)
12	(378)	(6.4)						(2.7)
13	352	7.2	250	4.9				2.8
14	368	7.4	252	4.8				(2.7)
15	350	7.2	255	4.9				2.7
16	350	6.6	255	4.9				2.9
17	310	(6.6)						(2.8)
18	300	7.0						2.8
19	275	6.9			138	1.8		2.9
20	255	7.0						2.9
21	255	6.5						2.8
22	275	6.0						2.7
23	295	5.6						2.7

Time: 75.0°W.
Sweep: 0.85 Mc to 13.75 Mc in one minute.
Median values.

Table 31 (Supersedes Table 9, IRPL-F22)

San Francisco, California (37.4°N, 122.2°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	300	5.1					2.3	2.6
01	290	4.9						2.7
02	280	4.8						2.7
03	280	4.7						2.7
04	280	4.2					2.4	2.7
05	280	4.3					2.7	2.8
06	260	5.4	250	3.8	120	2.3	2.9	2.8
07	350	6.0	220	4.2	110	2.8	3.6	2.7
08	360	6.7	220	4.6	110	3.2	3.9	2.8
09	340	7.1	220	5.0	100	3.5	4.1	2.8
10	370	6.9	205	5.0	100	3.6	4.1	2.7
11	380	7.6	200	5.1	100	3.8	4.0	2.7
12	375	7.4	215	5.2	100	3.7		2.7
13	365	7.6	210	5.2	100	3.7	4.0	2.8
14	380	7.8	220	5.1	100	3.7		2.8
15	345	7.6	220	5.0	100	3.6		2.8
16	340	7.5	230	4.8	100	3.3		2.9
17	300	7.4	235	4.3	110	3.0	3.2	2.9
18	280	7.1	240	3.7	120	2.4	3.1	3.0
19	250	6.8					2.8	3.0
20	240	6.6					2.8	3.0
21	250	6.2					3.0	2.8
22	260	5.6					2.8	2.8
23	300	5.3					2.7	2.7

Time: 120.0°W.
Sweep: 0.8 Mc to 12.0 Mc in six minutes. Record centered on the hour.
Median values.

Table 32

Tokyo, Japan (35.6°N, 139.6°E) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	300	7.8					3.2	2.8
01	290	7.6					3.2	2.8
02	280	7.2					3.0	2.8
03	260	6.6					3.0	2.8
04	280	6.2					2.8	2.8
05	275	6.6	260			1.7	2.8	2.9
06	240	7.6	230		115	2.4	3.8	3.2
07	245	8.1	220	4.2	110	3.0	4.8	3.2
08	255	8.3	215	5.0	110	3.3	5.8	3.2
09	260	8.5	210	5.0	110	3.6	6.0	3.0
10	295	8.8	200	5.6	100	3.8	7.0	3.0
11	300	9.5	200	5.5	100	3.8	5.6	2.9
12	300	10.2	210	5.6	100	3.9	6.4	3.0
13	295	10.3	220	5.4	100	3.5	6.4	3.0
14	290	10.5	220	5.3	100	3.6	5.2	3.0
15	280	10.2	210	5.2	100	3.2	5.4	3.1
16	280	9.8	220	5.0	105	2.8	5.5	3.1
17	270	9.6	240		110	2.3	6.0	3.1
18	260	9.3				1.8	5.7	3.1
19	250	9.0					4.6	3.1
20	260	7.8					5.2	2.9
21	290	8.0					5.1	2.8
22	300	7.9					5.4	2.7
23	300	8.0					4.2	2.7

Time: 135.00E.
Median values.

Table 33 (Supersedes Table 10, IRPL-F22)

Baton Rouge, Louisiana (30.5°N, 91.2°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	315	5.3						2.7
01	310	5.2						2.8
02	310	5.1						2.8
03	300	4.9						2.9
04	300	4.7						2.8
05	300	4.3						2.9
06	290	5.7	250	3.6	130	2.1		3.0
07	300	5.7	250	4.0	130	2.6	3.7	3.0
08	350	6.0	240	4.5	120	3.1	4.0	2.8
09	400	6.7	240	4.7	120	3.3		2.7
10	400	7.2	240	4.8	120	3.4		2.6
11	400	8.0	240	4.9	120	3.4		2.7
12	400	8.3	240	4.9	120	3.5		2.6
13	400	8.4	240	5.0	120	3.5		2.7
14	375	9.0	240	4.9	120	3.5		2.8
15	360	8.6	240	4.8	120	3.4		2.8
16	350	8.2	250	4.6	120	3.2		2.8
17	340	8.2	250	4.3	120	2.9	3.8	2.8
18	310	8.0	260	3.5	120	2.2	3.7	2.9
19	260	7.8					3.2	3.0
20	250	7.0					3.4	3.0
21	260	5.8					2.8	2.9
22	310	5.5						2.8
23	320	5.3						2.8

Time: 90.0°W.
Sweep: 1.7 Mc to 3.8 Mc in three minutes, thirty seconds.
Median values.

Table 34

San Juan, Puerto Rico (18.4°N, 66.1°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		7.5						2.8
01		7.8						2.8
02		7.0						2.9
03		6.6						2.8
04		6.0						2.9
05		5.4						2.9
06		5.6						2.9
07	305	6.8						2.9
08	300	8.0	220	4.0				2.9
09	320	8.6	220	4.6		3.3		2.8
10	380	9.6	220	5.0		3.4		2.6
11	380	10.2	220	5.1		3.5		2.7
12	380	10.9	220	5.1		3.6		2.7
13	370	11.2	230	5.2		3.7		2.7
14	365	11.0	220	5.0		3.5		2.7
15	340	11.1	220	5.0		3.5		2.7
16	330	11.0	230	4.6		3.2	4.6	2.8
17	320	10.4	240	4.0			4.0	2.8
18	300	10.1					3.4	2.9
19	290	9.2						2.9
20		8.2						2.8
21		7.9						2.8
22		7.8						2.7
23		7.4						2.8

Time: 60.0°W.
Sweep: Record centered on the hour.
Median values.

Table 35 (Supersedes Table 12, IRPL-F22)

Trinidad, B.W.I., West Indies (10.6°N, 61.2°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	8.8						3.0
01	250	9.1						3.0
02	250	8.5						3.0
03	250	7.6						3.1
04	245	6.2						3.0
05	260	5.8						3.0
06	260	6.0					2.0	3.0
07	230	7.4			120	2.5	2.8	3.1
08	260	8.4	220	4.6	110	3.0	3.9	2.9
09	280	9.3	220	5.0	110	3.6	4.4	2.8
10	320	10.3	220	5.4	120	3.8	4.6	2.7
11	330	11.3	230	5.4	120	3.9	4.5	2.8
12	330	11.7	220	5.5	120	4.1	4.6	2.8
13	320	12.5	220	5.3	120	4.1	4.7	2.9
14	320	12.6	220	5.2	120	3.9	4.8	2.9
15	320	12.0	220	5.2	120	3.8	4.9	2.8
16	310	12.5	230	5.0	120	3.5	4.8	2.8
17	270	11.8	230	4.4	120	2.8	4.4	2.8
18	270	10.9					4.0	2.8
19	270	10.7					3.0	2.8
20	290	10.9					2.4	2.8
21	280	10.8					2.1	2.9
22	280	10.5						2.8
23	260	10.6						2.9

Time: 60.0°W.
Sweep: Manual operation.
Median values.

Table 36

Huancayo, Peru (12.0°S, 75.3°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	220	7.7						3.0
01	230	7.0						3.1
02	230	6.4						3.1
03	240	5.2						3.1
04	250	4.6						3.1
05	260	3.6						3.0
06	280	4.5				1.4	2.8	2.8
07	250	7.8				2.4	4.8	3.0
08	230	9.4				3.0	6.9	2.8
09	280	9.9	220	5.0		3.5	9.2	2.6
10	300	9.8	210	5.1			9.4	2.4
11	305	9.4	200	5.1			9.5	2.4
12	320	9.3	200	5.1			9.5	2.4
13	320	9.4	200	5.0			9.6	2.3
14	290	9.4	200	4.8		3.6	9.5	2.3
15	220	9.7	220	4.6		3.3	8.4	2.4
16	230	9.6				2.0	7.4	2.4
17	260	9.3				2.2	4.8	2.4
18	310	8.8				1.0	2.8	2.4
19	310	8.4						2.4
20	295	8.4						2.6
21	250	8.4						2.8
22	230	8.2						3.0
23	230	7.7						3.0

Time: 75.0°W.
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 37

Tromso, Norway (69.7°N, 18.9°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	362	(4.8)					3.0	
01	333	(4.8)					2.8	
02	332	(4.7)						
03	290	4.9						
04	292	5.2						
05	320	5.4		3.9		2.4		
06	272	5.9		4.3		2.7		
07	290	6.1		4.4		2.9		
08	324	6.4		4.6		3.0		
09	330	6.9		4.6		3.1		
10	323	7.0		4.8		3.1		
11	317	7.3		4.7		3.2		
12	283	7.6		4.6		3.1		
13	290	7.2		4.6		3.0		
14	285	7.0		4.3		3.0		
15	252	6.8		4.2		2.6		
16	264	6.2				2.6		
17	267	6.0				2.6		
18	268	6.0				2.3		
19	280	5.6					3.0	
20	342	5.6						
21	340	5.6					3.5	
22	357	5.1					3.6	
23	372	(4.8)					3.8	

Time: 15.0°E.
Sweep: 0.8 Mc to 11.4 Mc in five minutes.
Median values.

Table 38

Tokyo, Japan (35.6°N, 139.6°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		7.0						2.9
01		6.8					2.2	3.0
02		6.8						3.1
03		6.2						3.1
04		5.5						3.0
05		5.6						3.1
06		7.5					2.8	3.4
07		8.3					3.3	3.5
08		9.2					3.9	3.4
09		10.4		4.8			4.1	3.3
10		11.2		5.0			4.3	3.2
11		11.4		5.2			4.2	3.3
12		12.0		5.4			4.2	3.2
13		11.4		5.1			4.1	3.2
14		11.1		5.0			4.0	3.2
15		10.9		4.8			4.2	3.3
16		10.2		4.3			4.0	3.4
17		10.0		3.0			4.0	3.3
18		9.7					3.8	3.4
19		8.8					3.2	3.4
20		7.6					3.0	3.2
21		7.2					2.6	3.0
22		7.3					2.8	3.0
23		7.2						2.9

Time: 135.0°E.
Median values.

Table 39

Cairo, Egypt (30.6°N, 31.9°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		8.6					2.7	2.8
01		8.6					2.4	
02		7.8					2.7	3.0
03		6.6					2.5	
04		5.9					2.4	2.9
05		5.6						
06		6.8					2.4	3.1
07		8.0					3.0	
08		9.0					3.2	3.0
09		10.2					3.8	
10		11.2					3.9	2.8
11		12.1					4.0	
12		13.0					3.8	2.8
13		13.2					3.8	
14		13.0					3.7	2.9
15		12.6					3.4	
16		11.7					3.8	3.0
17		11.1					3.4	
18		10.6					2.9	3.1
19		9.4					2.9	
20		8.8					3.0	2.7
21		8.					2.6	
22		[illegible]					2.4	2.7
23		8.4					2.7	

Time: 30.0°E.
Median values.

Table 40 (Supersedes Table 14, IRPL-F22)

Chungking, China (29.4°N, 106.8°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	245	8.3						3.1
01	240	8.6						3.2
02	220	8.0						3.3
03	230	6.4						3.2
04	260	5.2						3.2
05	260	5.2						3.1
06	240	7.0	225	4.6				3.2
07	220	8.6	220	4.7				3.3
08	260	9.5	220	5.2				3.1
09	260	10.7	220	5.4				3.0
10	280	11.6	220	5.5				3.0
11	300	(12.5)D	215	5.8				(3.0)D
12	300	(14.0)D	220	5.8				(3.0)D
13	300	(14.0)D	235	5.6				
14	280	(13.4)D	220	5.6				(3.1)D
15	280	(13.7)D	240	5.6				(3.1)D
16	260	(13.0)D	220	5.3				(3.3)D
17	260	(13.0)D	230	4.8				(3.2)
18	220	(12.5)D	220					(3.2)
19	220	10.2						(3.2)
20	220	9.8						3.1
21	240	8.7						3.0
22	260	9.0						3.0
23	240	9.0						3.0

Time: 105.0°E.
Sweep: 3.3 Mc to 12.3 Mc in fifteen minutes. Manual operation.
Median values.

Table 41 (Supersedes Table 20, IRPL-F22)

[illegible]art, Tasmania (42.8°S, 147.[illegible]) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	275	5.6					2.2	2.9
01	276	4.4					2.1	2.8
02	280	3.8					2.1	2.9
03	275	3.6					2.6	[illegible]
04	270	3.5					2.0	[illegible]
05	255	2.9					2.1	[illegible]
06	250	3.0					2.6	3.1
07	250	5.1				(2.0)	2.7	3.3
08	245	6.8				2.5	2.8	3.3
09	250	8.0	230	[illegible]		2.9	3.0	3.2
10	250	8.8	230	4.4		3.1	3.3	3.2
11	265	9.8	225	4.7	[illegible]	3.3	3.3	3.1
12	260	10.2	228	4.7	[illegible]	3.3	3.4	3.1
13	260	10.8	228	4.6	105	3.4	3.4	3.1
14	250	10.5	230	4.5	[illegible]	3.2	3.3	3.1
15	250	10.0	230	4.0		3.0	3.1	3.1
16	245	10.0				2.7	2.8	3.1
17	240	9.9				2.1	2.7	3.1
18	230	9.0				1.6	2.8	3.1
19	232	7.6					2.1	3.0
20	240	6.5					2.1	3.0
21	250	5.5					2.1	3.0
22	255	5.3					2.1	2.9
23	260	5.2					2.1	2.9

Time: 150.0°E.
Sweep: 1.0 Mc to 13.0 Mc in one minute, fifty-five seconds.
Median values.

Table 42 (Supersedes Table 21, IRPL-F22)

Christchurch, N. Z. (43.5°S, 172.6°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	280	5.5					2.7	
01	270	5.5					[illegible]	
02	270	5.2					[illegible]	
03	270	4.8					[illegible]	
04	260	4.2					[illegible]	
05	255	3.6					2.7	
06	260	3.6					2.8	
07	240	5.3				1.6	2.6	
08	240	(7.8)	240	3.5		2.5		
09	240	9.0	230	4.2		2.9		
10	250	9.5	220	4.6		3.2		
11	250	(10.3)	220	4.7		3.3		
12	260	10.8	230	4.7		3.3		
13	260	11.0	230	4.6		3.3		
14	260	10.8	230	4.5		3.2		
15	260	10.4	240	4.2		3.0		
16	240	10.0	240	3.4		2.5		
17	240	(9.7)				1.8	2.9	
18	230	8.8					2.6	
19	240	(7.2)					2.7	
20	250	6.5					1.8	
21	250	5.6					2.7	
22	270	5.8					2.8	
23	270	5.4					2.2	

Time: 172.5°E.
Sweep: 1.0 Mc to 13.0 Mc. Automatic.
Median values.

Table 43

Oslo, Norway (59.9°N, 11.0°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		(4.4)						
01		(3.8)						
02								
03								
04								
05		(3.4)						
06		4.2						
07		5.1				2.1		
08		5.8				2.4		
09		6.0				2.7		
10		6.5				3.0		
11		(7.5)				3.1		
12		(7.9)				3.2		
13		(8.0)				3.2		
14		(7.7)				3.2		
15		8.3				3.0		
16		(7.4)				2.8		
17		(7.1)				2.4		
18		(6.3)				(1.8)		
19		(6.6)						
20		(6.8)						
21		6.5						
22		(5.0)						
23		(4.4)						

Time: 15.0°E.
Sweep: 16.0 Mc to 1.63 Mc in ten minutes.
Median values.

Table 44

Leyte, Philippine Is. (11.0°N, [illegible]) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		10.3					3.6	3.1
01		10.5					3.6	3.2
02		9.4					3.5	3.4
03		6.8					3.5	3.1
04		5.4					3.4	3.1
05		4.6					3.2	3.1
06		3.6					3.6	3.2
07		6.6				1.8	4.6	3.0
08		9.8		3.8		2.8	6.2	3.0
09		11.4		4.0		3.3	6.7	2.7
10		11.6		5.0		3.6-	6.8	2.5
11		10.7		5.2		3.8	6.7	2.4
12		10.5		5.4		4.0	6.8	2.4
13		10.6		5.4			6.5	2.4
14		11.4		5.3			5.4	2.4
15		12.3		5.3		3.8	5.8	2.4
16		12.6		5.0		3.5	5.0	2.5
17		13.0				3.1	6.0	2.6
18		12.6				2.0	6.0	2.5
19		11.4					4.9	2.4
20		10.2					2.5	2.3
21		(10.2)					2.3	(2.4)
22		(11.2)					2.2	(2.7)
23		11.3					2.3	(3.0)

Time: 135.0°E
Sweep: Manual operation.
Median values.

Table 45

Colombo, Ceylon (6.6°N, 80.0°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		10.0						3.1
01		9.5						
02		9.4						3.2
03		9.3						
04		9.0						3.3
05		[illegible]						
06		8.7						3.0
07		8.9					3.0	
08		[illegible]					3.8	2.8
09		[illegible]					4.6	
10		[illegible]					4.8	2.5
11		[illegible]					4.6	
12		9.9					4.5	2.5
13		10.8					4.2	
14		11.3					4.0	2.5
15		11.6					3.8	
16		11.3					3.7	2.6
17		11.5					3.6	
18		11.0					2.8	(2.6)
19		10.6						
20		(10.8)						(2.4)
21		(10.6)						
22		(10.8)						(2.9)
23		(10.7)						

Time: Local
Sweep: 2.0 Mc to 16.0 Mc in one minute.
Median values.
e Data sheet labeled "Extent of E."

Table 46 (Supersedes Table 15, IRPL-F21)

Brisbane, Australia (27.5°S, 153.0°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	280	7.0					2.5	2.9
01	260	6.9						3.0
02	260	6.5						3.0
03	250	6.0						2.9
04	270	5.5						2.9
05	280	5.3						2.9
06	240	6.4						3.2
07	230	8.0			115	2.5		3.3
08	220	9.3			110	3.0	3.3	3.2
09	212	10.2	205	5.0	110	3.4	3.7	3.2
10	245	10.6	200	5.2	110	3.7	3.7	3.1
11	270	11.0	200	5.4	110	3.7	3.4	3.1
12	280	11.1	200	5.4	110	3.8		3.1
13	260	11.0	200	5.3	110	3.7		3.0
14	270	10.6	205	5.4	110	3.6		3.0
15	220	10.9			110	3.5		3.0
16	230	10.5			115	3.0		3.1
17	235	10.3			120	2.5	3.1	3.1
18	220	9.3						3.1
19	240	8.3						2.9
20	265	7.5						2.9
21	260	7.5						2.8
22	260	7.6						2.8
23	260	7.3						2.9

Time: 150.0°E.
Sweep: 2.2 Mc to 12.5 Mc in two minutes, thirty seconds.
Median values.

Table 47 (Supersedes Table 23, IRPL-F22)

Watheroo, W. Australia (30.3°S, 115.9°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	5.5					3.1	2.7
01	262	5.4					3.1	2.8
02	260	5.2					3.0	2.8
03	250	4.9					2.9	2.8
04	255	4.5					2.9	2.8
05	260	4.2					2.9	2.8
06	260	4.8					3.1	2.9
07	240	6.7				2.3	3.2	3.3
08	235	7.5				2.9	3.3	3.2
09	270	8.4	220	4.3		3.2	3.8	3.1
10	288	9.2	215	5.0		3.5	3.8	3.0
11	282	9.7	205	5.3		3.6	3.8	2.9
12	305	10.1	220	5.4		3.7	4.0	2.9
13	300	10.6	220	5.3		3.7	4.1	2.8
14	300	10.8	225	5.1		3.7	4.1	2.9
15	285	10.7	225	5.0		3.5	3.8	2.9
16	260	10.1				3.2	3.4	2.9
17	240	9.6				2.7	3.3	3.0
18	240	9.1				1.7	3.1	3.1
19	230	8.4					3.0	3.0
20	235	7.2					2.8	2.8
21	240	6.7					2.8	2.9
22	256	6.1					2.9	2.8
23	260	5.8					2.9	2.8

Time: 120.0°E
Sweep: 18.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 48

Canberra, Australia (35.3°S, 149.0°E) March 1946*

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	(290)	(6.2)					3.3	(2.9)
01	(270)	(5.6)					2.4	(2.8)
02	(270)	(5.5)						(2.9)
03	(270)	(4.6)						(2.9)
04	(280)	(4.4)						(2.9)
05	(285)	(4.4)					3.2	(2.9)
06	(280)	(4.8)					3.0	(3.0)
07	(280)	(6.0)			110	2.5	3.6	(3.0)
08	(260)	(7.5)	250	4.4	100	3.1	3.5	(3.0)
09	(290)	(8.1)		4.5	100	3.4		(3.0)
10	(300)	(8.1)	200	4.6	100	3.6	3.9	(3.0)
11	(300)	(8.2)	200	4.7	100	3.6		(2.9)
12	(310)	(7.9)	210	4.6	100	3.6		(3.0)
13	(320)	(8.1)	200	4.9	100	3.7		(3.0)
14	(340)	(8.0)	210	4.9	100	3.6		(2.9)
15	(300)	(8.0)	230	4.7	100	3.6		(2.9)
16	(300)	(7.7)	220	4.5	100	3.3		(3.0)
17	(290)	(7.8)	250	4.1	105	2.9		(3.0)
18	(250)	(7.4)				2.2		(3.0)
19	(260)	(7.0)						(3.0)
20	(260)	(6.6)					2.9	(2.9)
21	(300)	(6.2)					3.3	(2.8)
22	(290)	(6.2)					3.5	(2.9)
23	(300)	(6.2)					3.1	(2.8)

Time: 150.0°E.
Sweep: 1.6 Mc to 12.5 Mc in two minutes.
*Last through 9th, only.

Table 49 (Supersedes Table 24, IRPL-F22)

Hobart, Tasmania (42.8°S, 147.4°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00	275	5.4					2.6	2.9
01	275	5.2					2.8	2.9
02	270	4.9					2.9	2.9
03	260	4.4					2.8	3.0
04	260	3.7					3.0	3.0
05	275	3.1					2.8	3.0
06	260	3.9				(1.4)	2.6	3.2
07	250	5.5			120	2.3	2.8	3.3
08	240	6.0	230	4.1	110	2.8	3.0	3.2
09	268	7.0	225	4.5		3.1	3.6	3.2
10	290	7.5	210	4.8		3.4	3.6	3.1
11	290	8.4	200	5.0	100	3.5	3.6	3.1
12	300	8.8	200	5.0	100	3.5	3.8	3.0
13	300	8.7	212	5.0	100	3.6	3.6	3.0
14	300	9.1	225	4.8	100	3.5	3.6	3.0
15	275	9.0	225	4.7	100	3.4	3.4	3.0
16	258	9.0	228	4.5	100	3.0	3.4	3.0
17	250	8.5			116	2.7	2.9	3.0
18	250	8.5				2.0	2.8	3.0
19	242	8.4					2.8	3.0
20	250	7.5					3.2	2.9
21	250	6.6					2.9	2.8
22	260	6.0					2.5	2.8
23	272	5.8					2.6	2.8

Time: 150.0°E
Sweep: 1.0 Mc to 13.0 Mc in one minute, 55 seconds.
Median values.

Table 50

Falkland Is. (51.7°S, 57.7°W) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs*	F2-M3000
00		6.3						3.6
01		5.9						
02		5.9						3.6
03		5.4						
04		5.2						3.7
05		5.1						
06		6.4						3.0
07		7.8					3.2	
08		8.9					3.4	3.0
09		10.0					4.5	
10		10.4				3.4	5.0	3.0
11		11.1					4.8	
12		11.4					4.8	3.0
13		11.1					4.4	
14		10.6					4.2	3.2
15		9.9					3.8	
16		9.2					3.6	3.2
17		8.6					3.3	
18		8.8					3.4	3.2
19		8.0					3.4	
20		6.9					3.0	3.0
21		6.4					2.5	
22		6.4						2.8
23		6.4						

Time: 60.0 W.
Median values.
*Data sheet labeled "Extent of E".

Table 51 (Supersedes Table 18, IRPL-F21)

Rarotonga Island (21.3°S, 159.8°W) February 194

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00		9.5						
01		8.8						
02		7.1						
03		6.7						
04		6.4						
05		6.2						
06		6.2						
07		7.8						
08		9.5						
09		9.8						
10		10.6						
11		11.6						
12		12.6						
13		13.4						
14		13.5						
15		13.0						
16		11.8						
17		11.0						
18		9.8						
19		9.5						
20		9.2						
21		9.6						
22		9.8						
23		9.4						

Time: 157.5°W.
Sweep: 2.0 Mc to 16.0 Mc. Manual operation.
Median values.

Table 52

Falkland Is. (51.7°S, 57.7°W) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00		7.0					3.2	2.6
01		6.9					2.6	
02		7.0					2.4	2.8
03		6.6						
04		6.5						2.8
05		6.5						
06		7.1				2.6	3.2	3.0
07		8.0				2.6	4.0	
08		8.5				3.0	5.3	2.9
09		9.4					6.1	
10		9.9					5.0	2.9
11		10.0					5.4	
12		9.0					4.6	3.0
13		9.5					5.4	
14		8.2					4.8	3.1
15		8.0					5.1	
16		8.0					4.7	3.1
17		7.8						
18		7.5					4.2	3.1
19		7.2						
20		7.1						
21		7.4						
22		7.0						
23		7.0					3.4	

Time: 60.0°W
Median values.
* Data sheet labeled "Extent of E".

Table 53 (Supersedes Table 24, IRPL-F20)

Rarotonga I. (21.3°S, 159.8°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		8.2						
01		7.2						
02		5.9						
03		5.5						
04		5.8						
05		5.0						
06		5.2						
07		6.5						
08		7.5						
09		8.4						
10		9.9						
11		10.4						
12		11.0						
13		11.9						
14		13.0						
15		12.7						
16		11.0						
17		9.9						
18		8.1						
19		7.4						
20		8.0						
21		8.2						
22		8.2						
23		8.2						

Time: 157.5°W.
Sweep: 2.0 Mc to 16.0 Mc. Manual operation.
Median values.

Table 54 (Supplements Table 52, IRPL-F21)

Slough, England (51.5°N, 0.6°W) December 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	382							2.6
01	372							2.6
02	366							2.7
03	349							2.7
04	334							2.8
05	319							2.9
06	294							3.0
07	319							2.9
08	250							3.3
09	241							3.5
10	242							3.4
11	237							3.5
12	244							3.4
13	247							3.4
14	251							3.4
15	239							3.5
16	247							3.4
17	272							3.2
18	271							3.2
19	282							3.0
20	308							3.0
21	340							2.8
22	378							2.6
23	374							2.6

Time: 0.0°.
Sweep: 0.5 Mc to 16.0 Mc in four minutes.
Median values.

Table 55 (Supersedes Table 15, IRPL-F18)

Rarotonga I. (21.3°S, 159.8°W) December 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		9.1						
01		8.6						
02		7.0						
03		6.8						
04		6.4						
05		6.2						
06		6.7						
07		7.9						
08		9.0						
09		9.5						
10		10.7						
11		11.1						
12		12.0						
13		12.0						
14		12.3						
15		12.2						
16		11.7						
17		10.5						
18		9.5						
19		8.9						
20		9.1						
21		9.2						
22		9.2						
23		9.2						

Time: 157.5°W.
Sweep: 2.0 Mc to 16.0 Mc. Manual operation.
Median values.

Table 56 (Supplements Table 63, IRPL-F20)

Slough, England (51.5°N, 0.6°W) November 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	370						2.4	2.7
01	366						2.5	2.7
02	364							2.7
03	367							2.7
04	350							2.8
05	320							2.9
06	320							2.9
07	287							3.1
08	246							3.4
09	240							3.5
10	249							3.4
11	255							3.4
12	252							3.4
13	257							3.4
14	258							3.4
15	254							3.4
16	254						1.7	3.4
17	272						2.0	3.2
18	271							3.2
19	276							3.2
20	304							3.0
21	362							2.7
22	368							2.7
23	368							2.7

Time: 0.0°.
Sweep: 0.5 Mc to 16.0 Mc in four minutes.
Median values.

Table 57 (Supersedes Table 18, IRPL-F17)

Rarotonga I. (21.3°S, 159.8°W) November 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		10.6						
01		9.8						
02		7.8						
03		7.4						
04		7.0						
05		7.4						
06		8.0						
07		9.4						
08		9.8						
09		10.9						
10		11.6						
11		12.2						
12		12.8						
13		13.0						
14		13.2						
15		12.8						
16		12.0						
17		11.4						
18		11.2						
19		10.8						
20		10.2						
21		10.5						
22		10.5						
23		10.6						

Time: 157.5°W.
Sweep: 2.0 Mc to 16.0 Mc. Manual operation.
Median values.

Table 58 (Supersedes Table 22, IRPL-F-18)

Kermadec (29.2°S, 177.9°W) November 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04								
05								
06	260	7.7	250	3.7	125	2.2		3.2
07	275	8.0	240	4.2	120	2.8	3.2	3.1
08	300	8.7	230	4.8	120	3.1	3.8	3.0
09	300	9.4	220	4.9	115	3.4	4.5	3.0
10	310	9.8	210	5.0	115	3.5	4.8	2.9
11	315	10.2	220	5.0	115	3.6	4.8	2.9
12	320	10.1	232	5.1	115	3.6		2.9
13	320	10.1	230	5.0	115	3.6	4.2	2.8
14	325	9.7	242	5.0	115	3.4		2.9
15	320	9.4	245	4.8	120	3.2		2.9
16	310	9.2	250	4.5	120	3.0		2.9
17	300	9.3	250	3.8	120	2.5		2.9
18	270	9.6					3.6	2.9
19	270	9.3					3.4	2.8
20	270	9.0					3.3	2.8
21	285	8.7					3.2	2.7
22								
23								

Time: 180.0°E.
Sweep: 1.8 Mc to 12.0 Mc. Manual operation.
Median values.

Table 59 (Supersedes Table 17, IRPL-F16)

Rarotonga I. (21.3°S, 159.8°W) October 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		9.2						3.1
01		8.4						3.2
02		6.4						3.1
03		5.7						2.8
04		5.6						2.9
05		5.5						3.0
06		6.8						3.1
07	245	8.8						3.2
08	275	9.6		4.7				3.3
09	280	10.2		5.0				3.2
10	295	11.1		5.1				3.1
11	310	11.8		5.2				3.0
12	305	12.2		5.2				3.0
13	315	12.0		5.2				3.0
14	315	11.5		5.2				3.0
15	300	11.6		5.2				2.9
16	300	11.3		4.7				3.0
17	280	11.2						3.1
18	265	11.4						3.1
19	260	10.5						3.0
20		10.0						2.8
21		9.2						2.9
22		9.0						(2.9)
23		9.0						3.0

Time: 157.5°W.
Sweep: 2.0 Mc to 16.0 Mc. Manual operation.
Median values.

Table 60 (Supersedes Table 20, IRPL-F15)

Kermadec Is. (29.2°S, 177.0°W) [illegible] 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	275	6.5						2.8
01	265	6.1						2.9
02	250	5.4					2.1	2.9
03	270	4.8					2.2	2.8
04	280	4.4					2.3	2.8
05	275	4.4						2.9
06	250	6.6			125	2.0		3.2
07	252	7.6	235	3.8	120	2.6		3.2
08	275	8.4	230	4.3	115	3.0		3.2
09	290	8.6	232	4.6	120	3.3		3.1
10	300	9.0	225	4.8	120	3.4		3.0
11	315	9.2	225	4.8	120	3.5		3.0
12	315	9.2	220	4.9	120	3.6		2.9
13	315	9.1	225	4.8	120	3.6		2.9
14	315	9.0	240	4.8	120	3.4		3.0
15	300	9.0	250	4.5	120	3.2		3.0
16	295	9.0	252	4.2	120	2.8		3.0
17	275	8.9	260	3.6	120	2.4		3.0
18	258	8.4					2.8	3.1
19	250	7.8					2.8	2.9
20	270	7.4					2.9	2.8
21	282	7.2					2.5	2.7
22	300	7.1					2.8	2.8
23	282	7.0					2.7	2.8

Time: 180.0°E
Sweep: 1.8 Mc to 12.0 Mc. Manual operation.
Median values.

Table 61 (Supersedes Table 20, IRPL-F15)

Kermadec Is. (29.2°S, 177.9°W) September 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	275	4.4						2.9
01	265	4.2						3.0
02	250	3.8						3.1
03	265	3.3						3.0
04	280	3.0						2.8
05	300	2.9						2.8
06	270	3.9						3.1
07	260	5.8			125	2.1		3.2
08	275	6.5	250	4.0	125	2.6		3.3
09	265	6.6	250	4.3	120	3.0		3.2
10	310	6.7	235	4.5	120	3.2		3.2
11	310	6.9	235	4.6	120	3.2		3.1
12	320	7.2	225	4.5	120	3.3		3.1
13	310	7.5	220	4.4	120	3.2		3.1
14	300	7.0	238	4.4	120	3.2		3.2
15	298	6.6	250	4.2	120	3.0		3.1
16	275	6.2	248	3.7	120	2.6		3.2
17	265	5.9			120	2.0		3.1
18	258	5.6					2.6	3.0
19	270	5.2					2.2	2.9
20	275	5.1						2.8
21	282	4.9						2.9
22	280	4.9					2.2	2.9
23	280	4.8						2.9

Time: 180.0°E.
Sweep: 1.8 Mc to 12.0 Mc. Manual operation.
Median values.

Table 62 (Supersedes Table 24, IRPL-F14)

Kermadec Is. (29.2°S, 177.9°W) August 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	285	3.9						3.0
01	275	3.7						3.0
02	270	3.7						3.0
03	265	3.8						3.0
04	260	3.2					2.4	3.1
05	280	3.0						3.0
06	280	3.0						3.0
07	250	5.2						3.4
08	265	6.0	250	3.7	125	2.4		3.3
09	275	6.4	250	4.0	120	2.8		3.4
10	290	6.3	235	4.4	120	3.1		3.3
11	285	6.4	225	4.4	120	3.2		3.3
12	285	6.2	225	4.4	120	3.2		3.4
13	300	6.5	225	4.4	120	3.2		3.3
14	295	6.4	235	4.2	120	3.1		3.3
15	285	6.4	235	4.0	120	2.9		3.3
16	270	5.8	242	3.4	120	2.5		3.3
17	250	5.5				2.0		3.3
18	240	4.8						3.2
19	250	4.2					1.9	3.1
20	280	3.8						2.9
21	285	3.6						2.9
22	290	3.7					2.1	2.9
23	295	3.7						2.9

Time: 180.0°E.
Sweep: 1.8 Mc to 12.0 Mc. Manual operation.
Median values.

Table 63 (Supersedes Table 16, IRPL-F13)

Kermadec Is. (29.2°S, 177.9°W) July 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	295	3.8						2.9
01	290	3.7						2.9
02	275	3.7						2.9
03	278	3.9						3.0
04	250	3.9					2.5	3.1
05	260	3.6					2.6	3.0
06	250	3.3					2.7	3.1
07	235	4.8						3.4
08	250	5.6			125	2.2		3.4
09	265	5.8	250	3.8	120	2.7		3.4
10	270	6.6	250	4.2	115	3.0		3.4
11	270	6.3	230	4.3	115	3.0		3.5
12	275	6.2	228	4.4	115	3.1		3.4
13	285	6.4	225	4.3	115	3.1		3.3
14	270	6.2	245	4.2	115	3.0		3.4
15	265	6.2	235	3.8	115	2.7		3.4
16	250	5.8	250	3.4	115	2.4		3.4
17	240	5.6					3.4	3.4
18	225	4.4					3.2	3.4
19	235	3.6					2.8	3.0
20	265	3.6					2.4	3.0
21	280	3.6					2.2	2.9
22	280	3.6					2.0	2.9
23	275	3.6						2.9

Time: 180.0°E
Sweep: 1.8 Mc to 12.0 Mc. Manual operation.
Median values.

Table 64 (Supersedes Table 23, IRPL-F12)

Kermadec Island (29.2°S, 177.9°W) June 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290	3.8						2.9
01	288	3.8						2.9
02	278	3.9						2.9
03	272	4.0						3.1
04	250	4.0						3.2
05	250	3.6						3.1
06	250	3.4						3.1
07	235	5.0				1.4		3.4
08	245	6.2			125	2.2		3.5
09	255	6.3	250	3.9	118	2.6		3.4
10	270	6.8	242	4.2	115	2.9		3.4
11	270	6.6	235	4.3	115	3.1		3.4
12	275	6.5	225	4.4	115	3.2		3.4
13	270	6.5	225	4.3	115	3.1		3.4
14	268	6.4	225	4.1	115	3.0		3.4
15	255	6.5	240	3.8	115	2.8		3.3
16	245	6.0			120	2.2		3.5
17	235	5.6						3.4
18	225	4.5						3.3
19	240	3.9						3.2
20	250	3.6						3.1
21	272	3.6						3.1
22	275	3.6						3.0
23	275	3.7						3.0

Time: 180.0°E
Sweep: 1.8 Mc to 12.0 Mc. Manual operation.
Median values.

TABLE 65
IONOSPHERE DATA- I

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $h'F_2$ in [km] for June (Month) 1946

Records measured by: A.K.B. J.L.S.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	300	300	280	280	(260	240	(300)	270	260	310	280	330	360	350	320	320	310	300	260	250	(250)	(260)	250	(300)
2	270	260	260	290	270	240	250	330	310	270	300	(320)	350	370	340	310	310	300	270	250	230	250	240	250
3	260	270	250	250	260	250	250	290	330	280	350	330	350	(380)	350	320	300	300	280	260	260	(290)	(280)	260
4	270	280	270	(300)	290	290	300	300	320[H]	(370)	(370)	390	380	(400)	350	320	[310][C]	310	280	250	250	250	260	260
5	260	260	260	260	260	250	(280)	290	(370)	350	350	(350)	370	340	350	330	330	330	300	260	250	260	240	220
6	250	280	280	250	260	270	[310][A]	[350][A]	(510)	410	450	(380)	[430][C]	[410][C]	420	350	(350)	350	280	[260][A]	250	280	(290)	280
7	300	280	270	290	310	420	350[K]	400[K]	430[K]	[460][A][K]	530[K]	(410)[K]	[480][A][K]	420[K]	500[K]	470[K]	410[K]	360[K]	310[K]	260[K]	240[K]	250[K]	310[K]	280[K]
8	290[K]	290[K]	290[K]	280[K]	320[K]	260[K]	310[K]	420[K]	G[K]	530[K]	630[K]	650[K]	670[K]	570[K]	470[K]	500[K]	390[K]	400[K]	330[K]	260[K]	250[K]	260[K]	280[K]	310[K]
9	310[K]	320[K]	240[K]	300[K]	320[K]	330[K]	G[K]	G[K]	G[K]	G[K]	G[K]	G[K]	G[K]	(630[K]	590[K]	460[K]	450[K]	380[K]	320[K]	280[K]	250[K]	270[K]	250[K]	(280)[K]
10	(280)[K]	[270][A][K]	(280)[K]	300[K]	(260)[K]	[270][A][K]	260	300	320	390	340	340	370	...00	350	350	330	320	300	(250)	240	250	[280][A]	[290][A]
11	300	290	270	270	290	330	400	350	350	370	(390)	350	410	[390][C]	410	350	380	340	290	280	(280)	C	C	C
12	C	C	C	C	C	C	C	C	C	C	[410][A]	380	490	420	370	380	[360][A]	350	350	260	260[K]	[250][C][K]	300[K]	270[K]
13	(330)[K]	300[K]	270[K]	280[K]	290[K]	270[K]	(400)[K]	(490)[K]	480[K]	480[K]	(630)[K]	G[K]	G[K]	[680][C][K]	550[K]	520[K]	520[K]	480[K]	320[K]	280[K]	250[K]	250[K]	290[K]	290[K]
14	290[K]	290[K]	280[K]	270[K]	280[K]	270[H][K]	(360)[K]	300[K]	370	350	350	340	380	370	380	340	[330][C]	300	280	260	270	280	260	270
15	270	290	270	280	280	(300)	(580)	(370)	[320][C]	340	[310][C]	[400][C]	[430][C]	[430][C]	(410	350	350	320	280	(250)	(270)	270	270	270
16	290	(300)	290	260	290	(300)	430[K]	350[K]	450[K]	(540)[K]	500[K]	(390)[K]	(310)[K]	[440][C][K]	360[K]	450[K]	(410)[K]	360[K]	310[K]	270[K]	250[K]	290[K]	280[K]	(330)[K]
17	(320)[K]	(260)[K]	(300)[K]	(250)[K]	260[K]	(280)[K]	G[K]	540[K]	620[K]	(540)[K]	480[K]	G[K]	G[K]	G[K]	540[K]	520[K]	450[K]	430[K]	360[K]	280[K]	260[K]	280[K]	(330)[K]	270[K]
18	290[K]	320	270	270	280	300	380	400	370	(330)	350	(370)	(480	430	440	380	370	340	300	250[K]	240[K]	240[K]	(290)[K]	[300][C][K]
19	310[K]	300[K]	270[K]	290[K]	300[K]	C[K]	C[K]	C[K]	C[K]	C[K]	460[K]	480[K]	550[K]	[430][C][K]	410[K]	450[K]	(340)[K]	C[K]	C[K]	C[K]	C	C[K]	C	[270][C]
20	[290][C]	[280][C]	[260][C]	[260][C]	[270][C]	[270][C]	[270][C]	400	440	360	C	C	C	C	C	C	C	C	C	250	230	270	270	290
21	280	290	280	C	C	C	C	C	C	C	[480][C]	[440][C]	[440][C]	[440][C]	[470][C]	[440][C]	380	370	[290][C]	270	240	270	290	290
22	280	260	250	250	280	280	400	410	430	420	490	C	C	C	C	(490)	390	320	[320][A]	[280][A]	(280)	(300)	270	A
23	310	[280][A]	260	280	320	280	310	350	340	C	C	C	C	C	390	340	330	320	270	(260)	270	260	280	[280][A]
24	300	270	250	220	250	250	260	260	310	300	290	330	370	(350)	[370][C]	(350)	360	340	300	250	[230][C]	[230][A]	260	260
25	290	300	290	320	250	300	270	(310)	300	410	[430][A]	420	(420)	[400][C]	440	380	[350][C]	350	310	[370][A]	250	250	270	270
26	260	290	250	230	270	280[H]	350	320	390	360	320	[330][C]	(350)	380	400	400	[380][A]	[350][A]	300	290	250	270	(300)	280
27	[270][A]	250	250	270	300	330	340	G	(360)	380	(500)	(430)	[430][B]	(580)	580	540	430	400	340	310	270	270	260	(300)
28	[270][A]	270	280	(300)	300	270	300	300	500	550	[450][C]	410	510	G	500	[410][C]	(370)	320	340	[290][A]	260	270	[280][A]	280
29	300	300	310	270	270	290	340	250	370	430	(450)	500	450	500	(470)	(390)[K]	360[K]	310[K]	260[K]	[300][A][K]	[270][A][K]	280[K]	[280][A][K]	[300][A][K]
30	[300][A][K]	310[K]	310[K]	[320][A][K]	320[K]	[280][A][K]	370	350	450	A	A	A	C	440	(400)	(400)	400	330	310	A	A	(270)	280	290
31																								
Median	290	280	270	275	280	280	340	350	370	380	430	390	430	420	410	380	370	340	300	260	250	270	280	280
Count	29	29	29	28	28	27	27	27	27	25	27	26	26	27	28	29	29	28	28	28	28	28	28	28

TABLE 66
IONOSPHERE DATA- 2

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of f^0F_2 in Mc for June (Month) 19 46

Records measured by: A.K.B. J.L.S.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	5.5	5.1 F	5.0	4.8 F	4.5 F	5.0	(5.7) F	6.8	7.2	8.0	(7.0)	7.0	7.6	8.0	8.2	8.2	8.2	[8.2] C	8.2	C	C	(7.2)	(6.2)	6.2
2	6.3	5.7	4.9	4.5	4.2	4.8	5.7	6.6	7.2	7.0	7.3	(7.1)	7.1	7.3	8.0	8.0	7.8	8.2	8.2	8.2	7.6	(7.4)	6.8	6.0
3	5.8	5.7	5.5	5.2	4.9	4.9	5.7	6.5	7.0	7.4	7.4	7.8	7.1	7.2	[7.2] C	7.8	(8.0) J	8.0	7.8	8.3	7.8	(7.0)	[6.7] C	(6.2)
4	5.6	5.3	5.3	4.7	4.5	4.8	5.7	(6.0) J	6.4 H	6.2	(6.6)	6.7	6.9	6.8	6.9	7.0	[7.1] C	7.2	7.1	(7.2)	[6.7] C	(6.2)	(6.3) J	5.9
5	5.3	5.2	4.8	4.5 J	4.3	4.7	5.4	6.0	5.9	6.4	6.6	(6.9) J	7.2	7.6	7.6	7.6	7.9	7.9	8.6	9.1	8.8	8.4	8.0	(6.8) J
6	(6.3) J	5.7	5.3	5.0	4.5	4.3	4.7	[5.2] A	5.3	(6.0)	(5.9)	(6.2) J	[6.2] C	[6.2] C	6.3	6.5	6.2	6.4	6.6	6.3	6.5	(6.1) J	6.0	5.5
7	5.5	5.6	4.7	4.4 F	3.6 F	3.6	4.6 K	4.8 K	5.0 K	(5.3) K	5.2 K	(5.7) K	[5.7] A K	5.6 K	5.3 K	(5.2) K	5.9 K	6.0 K	6.7 K	6.7 K	5.8 K	5.2 K	5.2 K	5.1 K
8	5.2 K	4.7 K	4.5 K	3.6 K	3.5 K	3.6 K	4.6 K	4.6 K	<4.2 G K	5.0 K	5.0 K	4.8 K	4.9 K	(5.2) K	5.2 K	(5.1) K	5.5 K	5.7 K	6.0 K	6.2 J K	(5.8) J K	(5.5) K	(4.8) K	4.3 F K
9	4.3 F K	4.8 F K	(3.8) F K	(3.1) F K	2.7 F K	3.2 K	<3.6 G K	<3.8 G K	<4.1 G K	<4.3 G K	<4.6 G K	<(4.5) G K	<4.7 G K	(5.0) K	(5.0) K	5.1 K	5.2 K	5.3 K	5.6 K	5.6 K	5.3 K	5.8 K	5.7 K	5.1 K
10	4.9 K	4.3 K	3.7 F K	3.6 F K	3.0 F K	4.3 K	5.3	6.0	6.4	6.5	6.6	6.7	6.4	6.3	7.0	6.7	6.6	6.3	6.6	6.9	[7.0] C	6.4	(5.5)	5.5
11	5.3	4.9	4.8	4.4	4.2	4.2	4.6	5.3	(6.0)	(5.7)	6.2	(6.2)	(5.8)	[5.9] C	(6.2)	6.1	6.0	6.4	6.8	7.0	6.9	C	C	C
12	C	C	C	C	C	C	C	C	C	C	(5.7)	(5.9)	(6.0)	6.2	6.4	6.2	[6.1] A	5.9	(6.2)	(6.3) J	6.9 K	[5.8] C K	(5.8) K	5.0 K
13	4.4 K	4.4 J K	4.0 K	3.9 K	3.3 K	3.6 K	(4.2) K	(4.5) K	4.8 K	4.9 K	(4.8) K	<4.8 G K	<4.8 G K	[4.9] C K	5.1 K	5.2 K	5.1 K	5.5 K	5.8 K	5.9 K	(5.3) K	(5.1) K	(4.8) K	(4.8) K
14	4.5 F K	4.2 K	3.8 K	3.4 F K	2.8 F K	3.9 F H K	5.3 K	6.5 K	6.2	[6.7] C	6.9	6.6	7.0	7.1	7.2	7.6	C	C	C	C	C	C	C	C
15	(5.9)	(6.0)	5.0	4.5	4.0	(4.0)	4.2	(5.7)	C	C	C	C	C	C	[6.2] C	(6.3)	C	C	C	C	C	C	C	C
16	5.7	5.8	5.3	4.3	3.9	3.9	4.6 K	5.7 K	5.3 K	(5.3) K	5.6 K	C K	C K	C K	C K	(5.9) K	C K	C K	C K	C K	C K	C K	C K	(5.7) K
17	5.7 K	(5.3) K	5.2 K	(4.7) K	4.1 K	3.9 K	<4.5 G K	4.6 K	4.9 K	(5.3) K	5.3 K	<4.8 G K	<5.1 G K	<4.9 G K	5.4 K	5.5 K	5.7 K	5.5 K	5.9 K	(6.1) K	(6.0) K	(5.8) K	(5.7) K	(5.4) K
18	5.1 K	4.9	4.7	(4.2)	3.7 F	4.1	5.1	5.5	(6.0)	C	C	(5.7)	[6.2] C	7.0	7.4	7.9	8.0	8.3	8.0	8.9 K	8.4 K	7.2 K	7.0 K	[6.2] C K
19	6.4 K	(5.3) K	4.1 K	3.8 F K	2.2 F K	C K	C K	C K	C K	C K	(5.4) K	(5.5) K	(5.6) K	[6.0] C K	6.4 K	6.7 K	[7.3] C K	C K	C K	C K	C K	C K	C	[5.9] C
20	[5.5] C	[5.1] C	[4.8] C	[4.0] C	[3.3] C	[3.8] C	[4.6] C	5.2	(5.5)	(6.3)	C	C	C	C	C	C	C	C	C	C	C	C	C	C
21	(6.0)	5.3	5.7	C	C	C	C	C	C	C	(5.8)	[6.3] C	[6.2] C	[6.2] C	[6.5] C	[6.8] C	6.8	7.2	[6.9] C	(7.2)	(7.2)	7.2	7.6	7.0
22	6.4	5.8	5.1	4.4	3.9	4.3	5.0	5.3	5.8	6.0	5.9	(6.3) J	[6.3] C	(6.0) J	[6.0] C	6.2	6.8 J	6.9	6.7	(6.5) J	(6.3) J	(6.9) J	(6.6)	5.9
23	(6.0)	5.7	5.3	4.3	4.3	(4.2)	5.4	5.7	6.2	[6.3] C	[6.2] C	[6.6] C	6.9	[7.0] C	7.1	7.6	7.6	7.8	7.6 J	(7.4)	(7.1)	(7.3)	(7.3)	(7.1)
24	(7.1) J	6.9	6.7	5.9	5.4	5.1	5.7	6.7	7.2	(7.7)	(7.9)	(8.3)	7.7	7.6	7.5	7.8	7.7	7.8	8.2	8.7	8.0	7.8	(7.1)	6.9
25	(6.4) J	6.3	5.9 J	5.7	5.0	5.0	5.3	5.5	6.6 J	6.4	[6.4] A	6.5	6.7	6.7	6.7	7.0	[6.9] C	(6.5)	6.9	7.0	(7.7)	7.6	7.5	7.4
26	(7.2)	6.5	(5.7) J	5.4 J	4.7	4.3 H	5.3	5.9	(6.0) J	(6.5) J	7.0	[6.8] C	7.6	6.9	(7.1) J	6.8	(6.6)	6.6	7.0	(7.2)	(7.5)	(7.2)	6.9	6.9
27	6.9	6.6	5.7	5.1	4.1	(4.1)	(4.9)	<(4.7) E	(5.8)	(6.0) J	6.1	(6.1)	[5.9] B	5.7	5.7	5.7	6.4	6.3	6.6	6.9	7.6	(7.6)	(7.7)	(6.2) J
28	(5.4)	(4.9)	(4.3) J F	(4.0) F	(3.6) J	4.1	5.2	5.3	5.3	(5.4)	[5.7] C	(6.2)	(5.7)	<5.3 G	(6.1) J	(6.4) J	6.8	6.8	6.9	6.5	(6.4) J	6.7	6.2 J	(5.7)
29	5.3	4.7	4.2 J	4.0	2.8	3.8	4.9	(5.5)	6.3	(6.5)	(6.3)	(6.3)	6.4	(6.1)	(7.0)	7.9 K	9.2 K	(9.5) K	(7.6) K	(6.6) K	(5.4) K	(5.7) K	(4.8) K	(3.8) F K
30	(4.3) K	(3.7) K	3.8 F K	(2.4) K	2.3 F K	3.7 K	4.7	5.1	5.3	A	A	A	C	(6.3)	(6.4)	6.4	6.4	6.7	7.0	7.2	7.1	6.8	6.1 J	5.9 J
31																								
Median	5.6	5.3	4.9	4.4	4.0	4.1	5.0	5.5	6.0	(6.2)	6.2	(6.3)	6.3	6.2	6.4	6.7	6.8	6.7	6.9	7.0	7.0	(6.8)	(6.2)	5.9
Count	29	29	29	28	28	27	27	27	26	24	26	26	26	27	28	29	26	25	25	24	24	24	24	26

TABLE 67
IONOSPHERE DATA - 3

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Half hourly values of f^0F_2 in [illegible] for June (Month) 19[illegible]6

Records measured by: A.K.B. J.L.S

TIME: 75°W MERIDIAN

Day	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
1	5.2	5.1 F	4.9 F	5.0	4.3 F	5.2	(6.6)	7.6	7.6	7.8	7.0	7.3	7.8	8.0	8.2	8.2	8.2	8.2	C	C	7.6	(7.0)	6.0 J	6.0
2	5.8	5.3	4.8	4.4	4.4	5.2	5.6	(6.6)	7.0	7.1	7.0	7.0	(7.4)	7.5	8.1	7.8	7.8	8.0	8.4	8.0	7.4	7.2	[6.3] C	5.8
3	5.6 J	5.6	5.3	5.0	4.8	5.4	6.2	6.5	7.5	7.1	7.6	7.2	7.2 C	(7.0)	[7.6] C	[7.9] C	7.8	7.8	8.2	8.2	(7.4)	6.9	6.4	6.0
4	5.6	5.3	5.0	4.7	4.5	5.3	(5.9)	6.2	6.5	6.2	6.4	7.0	[6.9] C	6.8	7.0	[7.1] C	[7.2] C	7.3	7.4	(7.0)	[6.5] C	[6.3] C	6.0	5.5 J
5	5.3	5.0	4.6	4.4	4.4	5.2	5.8	(6.0)	6.2	6.6	6.9	7.0	7.6	7.6	7.6	7.7	8.1	8.3	(9.1)	8.8	8.7	8.5	7.6	(6.6) J
6	5.7	5.2	5.2	5.2	4.2	4.7	5.3	(5.0)	5.2	5.8	6.5	5.8	(6.0)	(6.3)	6.6	6.4	6.3	6.5	6.6	(6.6)	(6.2) J	6.2	6.0	5.6
7	5.5	5.0	4.8	4.3	3.3 F	(3.8)	4.3 K	5.0 K	(5.1) K	[5.3] A K	[5.4] C K	5.3 K	5.9 K	5.3 K	(5.3) K	5.4 K	6.1 K	6.2 K	6.6 K	6.2 K	5.7 K	5.2 K	5.5 K	5.2 K
8	5.1 K	4.5 K	(4.0) K	3.2 F K	3.5 K	4.3 K	(4.5) K	<4.2 G K	4.8 K	4.7 K	5.2 K	(5.1) K	5.3 K	5.3 K	(5.1) K	5.4 K	5.3 K	5.7 K	6.3 K	6.1 K	(5.9) K	(5.4) K	4.6 F K	(4.6) K
9	4.2 K	(4.1) F K	2.7 F K	2.9 F K	2.8 K	3.4 K	<3.7 G K	4.2 K	<4.3 G K	<4.4 G K	<4.5 G K	<4.6 G K	<(4.6) G K	5.1 K	5.1 K	5.3 K	5.3 K	5.4 K	5.6 K	5.3 K	5.8 K	5.8 K	5.3 K	5.3 K
10	4.6 K	4.2 K	3.6 F K	3.3 F K	3.3 F K	4.8 K	(5.7)	6.4	6.6	(6.9)	7.0	6.5	6.6	6.7	6.6	6.7	6.4	6.4	6.8	(7.2)	6.8	5.8	(5.5)	5.4
11	4.9	4.9	4.6	4.3	4.0	4.4	5.0	5.2	5.8 J	(5.6)	(6.3)	(6.0)	(6.0)	5.8	[6.1] A	5.9	6.1	6.7	[6.9] C	[7.0] C	C	C	C	C
12	C	C	C	C	C	C	C	C	C	5.3	(6.2) J	[5.9] C	(5.6) J	6.4	6.7	[6.1] A	[6.0] A	5.6	6.4	(6.6)	(6.4) J K	(5.2) K	5.8 K	(5.2) K
13	4.4 K	4.3 K	4.2 K	3.6 K	3.1 K	3.9 K	4.2 K	(4.5) K	(4.9) K	(4.7) K	<4.7 G K	<4.8 G K	(5.0) K	(4.8) K	(5.1) K	5.0 K	5.3 K	5.8 K	5.8 K	5.8 K	5.3 K	(4.8) J K	(4.8) K	4.5 F K
14	4.4 K	4.0 K	(3.8) F K	3.0 F K	3.4 F K	4.7 K	(6.4) K	6.1 K	6.5	(7.6) J	[6.7] C	6.5	7.0	6.9	7.2	C	C	C	C	C	C	C	C	(6.2)
15	(5.7)	(5.6)	4.7	4.1 F	4.0	4.5	4.8	(7.2)	C	C	C	C	[illegible]	(5.7)	[6.3] C	C	C	C	C	C	C	C	C	(5.9)
16	(5.8)	5.5	5.1	4.0	3.7 F	4.3	5.3 K	5.8 K	(5.6) K	(5.4) K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	(5.8) K	(5.9) K
17	(5.8) K	4.7 K	[5.4] C K	(4.1) K	3.8 K	4.1 K	<(4.1) G K	(4.7) K	5.1 K	5.3 K	(5.0) K	4.9 K	(5.0) K	5.3 K	5.3 K	(5.5) K	5.6 K	(5.7) K	(6.2) K	[6.1] C K	(6.1) K	(5.7) K	(5.9) K	5.4 K
18	4.8 K	(4.9)	4.4	3.9	3.6 F	4.7	5.2	5.8	C	C	C	[5.9] C	6.4	(7.0)	7.8	7.8	8.2	7.8	8.5	(7.0) K	(8.4) K	(7.1) J K	(6.3) K	6.0 K
19	5.4 K	5.1 K	(3.8) F K	(4.2) F K	C K	C K	C K	C K	C K	C K	5.2 K	(5.3) K	(6.0) K	(6.2) K	[6.7] C K	7.0 K	7.6 K	C K	C K	C K	C K	C K	[6.4] C	[5.7] C
20	[5.3] C	[4.9] C	[4.5] C	[3.6] C	[3.2] C	[illegible]	[4.9] C	(5.8)	[5.9] C	(6.0)	C	C	C	C	C	C	C	C	C	(7.8)	C	C	C	C
21	(5.7)	5.3	C	C	C	C	C	C	C	5.6	(6.0) J	(6.3)	[6.2] C	[6.3] C	[6.7] C	6.8	6.8	7.0	6.8	(7.4)	7.2	7.5	7.5	(6.5)
22	(6.0)	5.5	4.9	3.9	3.9	[illegible]	5.2	5.6	6.0	6.0 J	(6.0) J	[6.3] C	(6.2)	[6.0] C	[6.1] C	(6.4)	7.0	[illegible]	[illegible]	[illegible] A	(6.7) J	(6.7)	6.4	5.7
23	5.8	5.7	5.1	4.2	4.0	[illegible]	5.6	5.9	6.3	[6.2] C	(6.2)	6.9	6.9	7.1	7.2	7.6	(7.6)	7.7	[illegible]	[illegible]	7.6	(7.2)	(7.2)	7.1
24	7.1	6.9	6.3	5.6	5.0	[illegible]	6.0	6.7	7.2 H	(8.0)	8.6	(7.9)	7.7	7.4	7.4	7.8	7.7	7.8	[illegible]	[illegible]	8.0	(7.8)	(7.1)	(6.5)
25	6.3	(5.9) J	5.7	5.6 J	4.6	5.6	5.4	(6.0) J	6.3	(6.4)	[6.5] A	6.6	6.8	6.8	7.0	[7.0] C	6.8	[illegible]	[illegible]	[illegible]	(7.7)	7.7	7.4	7.3
26	6.6	(6.0) J	5.8 J	5.0	(4.1)	4.7	(5.8)	6.0	(6.2) J	(7.2)	6.7	7.0	7.1 J	6.8	7.0	6.6	6.8	[illegible]	[illegible]	[illegible]	(7.8)	(7.1)	(6.9)	7.0
27	(6.9)	(5.8)	(5.6)	4.5	3.8	(4.4)	<4.6 G	5.7 J	(5.8) J	5.9 J	6.1	(6.1)	[5.8] C	5.8	5.7	6.1	6.4	[illegible]	[illegible]	[illegible]	(7.6)	(7.6)	(7.0)	(6.1) J
28	5.2	(5.1)	(4.2) F	(3.7) F	3.5	4.7	5.3	5.4	5.3	(5.5)	[6.0] C	[6.0] A	<5.2 G	(6.0)	(6.1) J	(6.4) J	(6.7)	(7.0) J	[illegible]	[illegible]	6.9	6.9	6.0 J	5.5
29	4.9	(4.5)	4.1 J	3.5	(3.2)	4.1	5.6	(5.9)	(6.4)	(6.5)	(6.5)	6.5	(6.2)	6.6	7.8	(8.1) K	9.9 K	(7.4) K	7.4 K	[illegible] K	5.8 K	5.7 K	(4.7) K	3.7 F K
30	4.0 K	(3.8) K	(3.5) K	[2.2] C K	2.9 K	(4.1) K	(4.9)	5.1	A	A	A	C	(6.7)	(6.4)	(6.5)	6.4	6.6	6.7	[illegible]	[illegible]	6.6	6.5	5.9 J	(6.2) J
31																								
Median	5.5	5.1	4.8	4.1	3.8	4.7	5.3	5.8	6.1	6.0	6.3	6.3	(6.2)	6.4	6.7	6.6	6.8	6.9	6.8	(7.0)	6.8	6.8	6.1	5.8
Count	29	29	28	28	27	27	27	27	24	26	25	26	27	28	28	26	26	25	24	25	24	24	26	28

TABLE 68
IONOSPHERE DATA- 4

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $h'F_1$ in [illegible] for June (Month) 1946

Records measured by: A.K.B. J.L.S.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							(230)	220	230	210	210	200	180	240^{H}	210	240	210	230	220					
2							230	230	A	A	A	200	190	200	230	230	210	210	240					
3							240	[230]^{A}	[220]^{A}	220	190	190^{H}	200^{H}	210^{H}	200^{H}	230	230	210	240					
4						270	220	240	(220)	210	180^{H}	200^{H}	210	220	200^{H}	220	[220]^{C}	220	230					
5							230	220	200	210	220	[200]^{A}	190^{H}	210^{H}	210	210	210	230	240					
6							A	A	A	220	230	220	210	210	220	220	[230]^{A}	240	240					
7						(280)	250^{K}	230^{K}	(240)^{K}	A^{K}	A^{K}	200^{K}	[220]$^{A}_{K}$	220^{K}	220^{K}	220^{K}	220^{K}	220^{K}	230^{K}					
8							230^{K}	220^{K}	200^{K}	210$^{H}_{K}$	190^{K}	190$^{H}_{K}$	210^{K}	210^{K}	220^{K}	220^{K}	[220]$^{A}_{K}$	230^{K}	210^{K}					
9							240^{K}	230^{K}	210^{K}	210^{K}	210^{K}	200^{K}	200$^{H}_{K}$	230^{K}	210^{K}	220^{K}	200^{K}	(250)^{K}	240^{K}	230^{K}				
10							220	230	210	200	220	190^{H}	200^{H}	200	210^{H}	230	220	210	240					
11						260	230	230	210	220^{H}	[200]^{A}	210	200	220	220^{H}	220	220	(250)	A					
12							C	C	C	C	[210]^{A}	210	220	220	210	A	A	A	220	240				
13							230$^{H}_{K}$	230^{K}	210^{K}	190$^{H}_{K}$	200$^{H}_{K}$	200^{K}	200^{K}	[200]$^{C}_{K}$	220^{K}	220^{K}	210^{K}	220^{K}	230^{K}	(260)^{K}				
14							220^{H}	230^{K}	210	220	200	200	230	A	A	A	C	220	A					
15							(230)	240	230	220	210	230	210	[200]^{A}	210	220	220	230	A					
16							250^{K}	220^{K}	200$^{H}_{K}$	210^{K}	180^{K}	170$^{H}_{K}$	250^{K}	200^{K}	220$^{H}_{K}$	230$^{H}_{K}$	220$^{H}_{K}$	220$^{H}_{K}$	230^{K}					
17							(290)^{K}	210^{K}	210^{K}	210^{K}	180^{K}	(190)^{K}	210^{K}	(190)^{K}	200$^{H}_{K}$	(270)^{K}	220^{K}	230^{K}	250^{K}					
18							250	230^{H}	200^{H}	[220]^{A}	210	200	200	(200)	230	230	220	240	230					
19							C^{K}	C^{K}	C^{K}	C^{K}	210^{K}	(190)$^{H}_{K}$	[220]$^{C}_{K}$	200$^{H}_{K}$	220^{K}	(240)^{K}	240^{K}	C^{K}	C^{K}					
20							[210]^{C}	230	210	A	C	C	C	C	C	C	C	C	C					
21							C	C	C	C	210	200	220	(200)	(210)	(200)	220	230	[240]^{C}					
22							230	220	230	210	(220)	200	[200]^{A}	190^{H}	[210]^{C}	230	[250]^{A}	A	A					
23							240	230	A	C	A	C	A	C	A	A	A	A	220^{H}					
24							230	230	210	210	(210)	200	200	(200)	(230)	210	220	220	230					
25						250	220	190	200	[220]^{A}	A	210	210	[200]^{A}	200^{H}	210^{H}	[210]^{C}	220	A					
26							230	240	220	220	220	180^{H}	(220)	[210]^{C}	210^{H}	(240)	A	A	A					
27						250	220	210	190	210	230	(210)	270	(210)	200	210^{H}	220	220	240	260				
28							240	230	220	[230]^{C}	[220]^{A}	[210]^{A}	(250)	220^{H}	[210]^{C}	(240)	A	220	A					
29						A	190	200	180	200^{H}	190^{H}	200	(220)	[230]^{B}	(220)	220^{K}	210^{K}	[230]$^{C}_{K}$	230^{K}					
30						^{K}	(250)	[230]^{A}	A	A	A	A	A	220	210	(220)	210	A	A					
31																								
Median						260	230	230	210	210	210	200	210	210	210	220	220	220	230					
Count						5	26	26	23	22	24	27	27	27	27	26	24	23	20					

TABLE 69
IONOSPHERE DATA - 5

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of f^oF_1 in {Mc} for June (Month) 1946

Records measured by: A.K.B. J.L.S.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							L	(4.3)	4.6	5.0	4.9	5.0	(5.2)	5.1^{N}	(5.0)	5.0	4.7	(4.6)	L					
2							L	4.7	A	A	A	5.0	5.1	5.1	4.9	5.0	4.8	4.4	L					
3							L	4.3	4.8	4.8	5.1	5.1^{N}	5.0^{N}	(5.0)^{N}	5.0^{N}	4.9	4.7	4.4	L					
4						L	3.5	4.2	4.7	(5.2)	(5.2)^{N}	5.0^{N}	5.0	5.1	5.0^{N}	4.8	[4.6]^{C}	4.2	L					
5							(3.7)	4.4	[4.7]^{L}	4.8	5.0	5.2	5.2^{N}	5.1^{N}	5.0	5.1	(4.5)	4.5	L					
6							A	[4.2]^{A}	(4.5)	4.8	4.9	5.0	5.1	4.9	4.9	4.7	4.4	(4.5)	L					
7						28	3.6^{K}	4.0^{K}	4.3^{K}	[4.6]$^{A}_{K}$	(4.6)^{K}	4.8^{K}	[4.9]$^{A}_{K}$	4.6^{K}	4.6^{K}	4.7^{K}	4.4^{K}	4.3^{K}	3.8^{K}					
8							3.5^{K}	4.0^{K}	4.2^{K}	4.4$^{N}_{K}$	4.5^{K}	4.6$^{N}_{K}$	4.7^{K}	4.7^{K}	4.7^{K}	4.5^{K}	4.4^{K}	4.1^{K}	(3.8)^{K}					
9							3.6^{K}	3.8^{K}	4.1^{K}	4.3^{K}	4.6^{K}	(4.5)^{K}	4.7$^{N}_{K}$	4.6^{K}	4.6^{K}	4.5^{K}	4.5^{K}	4.3^{K}	3.7^{K}	L^{K}				
10						K	L	4.2	4.5	4.8	4.9	4.9^{N}	5.0^{N}	4.9	4.8^{N}	4.7	4.5	4.3	L					
11						L	[3.8]^{L}	4.2	(4.4)	4.8^{N}	4.8	4.9	5.0	5.1	4.8^{N}	4.7	4.6	4.2	A					
12							C	C	C	C	[4.8]^{A}	4.8	5.0	4.9	4.8	(4.7)	[4.6]^{A}	4.4	3.8	L				
13							LH^{K}	4.2^{K}	4.2^{K}	4.5$^{N}_{K}$	4.7$^{N}_{K}$	4.8^{K}	4.8^{K}	[4.8]$^{C}_{K}$	4.7^{K}	4.7^{K}	4.5^{K}	4.3^{K}	3.9^{K}	L^{K}				
14							L^{K}	4.4^{K}	4.8	4.9	5.0	5.1	5.1	5.1	5.1	A	C	(4.5)	A					
15							3.9	4.3	[4.7]^{L}	5.0	5.0	5.2	[5.2]^{C}	5.2	5.2	5.0	4.7	4.7	A					
16							(4.0)^{K}	4.4^{K}	4.5$^{N}_{K}$	(5.0)^{K}	5.0^{K}	5.0$^{N}_{K}$	5.2^{K}	5.1^{K}	5.1$^{N}_{K}$	5.0$^{N}_{K}$	5.0$^{N}_{K}$	4.6$^{N}_{K}$	(4.7)^{K}					
17							4.5^{K}	4.1^{K}	4.5^{K}	4.6^{K}	4.8^{K}	4.8^{K}	5.1^{K}	4.9^{K}	(4.8)^{K}	4.8^{K}	4.6^{K}	4.4^{K}	3.9^{K}					
18							3.8	4.4^{H}	4.5^{H}	4.8	5.1	5.1	5.1	5.1	5.2	5.1	4.8	4.9	L					
19							C^{K}	C^{K}	C^{K}	C^{K}	4.7^{K}	4.9$^{N}_{K}$	5.0^{K}	5.0$^{N}_{K}$	5.0^{K}	5.0^{K}	4.8^{K}	C^{K}	C^{K}					
20							C	(4.3)	(4.8)	5.0	C	C	C	C	C	C	C	C	C					
21							C	C	C	C	5.0	5.0	5.2	5.0	(5.0)	(5.0)	4.8	4.7	C					
22							4.0	4.4	4.7	4.8	5.1	5.1	[5.1]^{A}	5.2^{N}	[5.1]^{C}	4.9	4.8	A	A					
23							3.9	4.5	(4.8)	[5.1]^{C}	C	C	C	[5.2]^{C}	(5.2)	(5.2)	(5.0)	(4.8)	LH					
24							L	L	(4.6)	(5.2)	5.3	(5.0)	5.3	[5.3]^{C}	5.2	5.2	(5.2)	4.7	L					
25						L	L	L	(4.7)	[5.1]^{C}	[5.2]^{A}	5.1	5.3	(5.3)	5.1^{N}	5.0^{N}	[4.8]^{C}	(5.0)	L					
26							L	(4.5)	4.8	4.9	5.2	5.2^{N}	5.3	5.2	5.1^{N}	5.3	A	A	L					
27						L	L	(4.7)	(4.8)	4.9	5.0	5.0	5.3	5.2	5.0	5.0^{N}	4.8	4.6	L	L				
28							L	L	4.7	4.7	5.0	5.0	5.1	5.3^{N}	[5.1]^{C}	5.0	A	4.5	L					
29						L	(3.5)	3.5	4.9^{N}	(5.0)^{N}	4.9^{N}	5.0	5.0	5.0	(4.9)	5.2^{K}	4.8^{K}	4.7^{K}	L^{K}					
30						K	L	4.3	4.6	A	A	A	[5.1]^{A}	5.1	(5.0)	5.1	4.7	(4.4)	L					
31																								
Median							3.8	4.3	4.6	4.8	5.0	5.0	5.1	5.1	5.0	5.0	4.7	4.5	3.8					
Count							13	24	26	25	26	27	28	29	29	28	26	26	7					

TABLE 70
IONOSPHERE DATA- 6

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $h'E$ in {mi / km} for June (Month) 1946

Records measured by: A.K.B. J.L.S.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						120 M	110	110	110	100	100	110	110	110	100	110	110	100	100	120				
2						110	110	110	110	110	110	110	110	110	110	110	110	110	110	120				
3						110	110	110	110	100	100	100	100	110	110	110	110	110	110 M	120				
4						120	110	110	110	110	110	100	100	110	110	110	C	110	110 M	120				
5						110	110	110	100	100	100	110	110	110	110	110	110	110	120	120				
6						120	110	110	100	100	110	110	110	110	110	110	110	110	110	(120)				
7						110	110 K	110 K	100 K	100 K	110 K	100 K	100 K	110 K	110 K	110 K	110 K	110 K	110 K	130 M K				
8						[120] C K	110 K	110 K	110 K	110 K	100 K	100 K	100 K	110 K	110 K	110 K	110 K	110 K	110 K	120 K				
9						110 K	110 K	110 K	100 K	100 K	110 K	100 K	110 K	110 K	100 K	100 K	110 K	110 K	110 K	120 K				
10						110 K	110	110	100	110	110	100	100	100	110	100	110	110	110	120				
11						140	110	110	110	100	100	100	100	100	100	100	110	110	120	120				
12						C	C	C	C	C	100	100	110	110	110	100	100	100	110	120 M				
13						(120) K	110 K	110 K	110 K	100 K	100 K	100 K	100 K	100 K	100 K	100 K	100 K	110 K	110 M K	120 K				
14						(130) K	1 K	110 K	110	110	110	110	110	110	110	110	[110] C	110	110	120				
15						120	110	110	100	100	(110)	100	(100)	110	110	110	110	110	(110)	(120)				
16						(120)	120 K	110 K	110 K	110 K	(120) K	(110) K	110 K	110 K	(110) K	(110) K	[110] C K	110 K	110 K	120 K				
17						120 K	110 K	110 K	110 K	110 K	110 K	110 K	110 K	110 K	(110) K	110 K	110 K	110 K	110 K	120 K				
18						C	(120)	110	110	110	110	110	110	110	110	100	110	110	120	130 K				
19						C K	C K	C K	C K	C K	110 K	110 K	110 K	110 K	110 K	110 K	110 K	C K	C K	C K				
20						C	[110] C	110	110	100	C	C	C	C	C	C	C	C	C	120				
21						C	C	C	C	C	110	110	110	110	110	100	110	110	[110] C	120 M				
22						120 M	110	110	110	100	100	100	110	100	[100] C	110	110	110	110	120				
23							100	110	110	110	110	110	110	100	110	110	110	110	100	120				
24						110	110	110	110	110	110	110	110	100	100	110	100	110	110	120				
25						C	110	110	110	110	110	110	110	110	100	110	[110] C	110	110					
26							100	100	100	100	110	110	110	110	110	100	110	110	110	110				
27						(110)	110	110	100	110	110	110	110	110	100	110	110	110	110	110				
28						(130)	110	110	100	100	110	110	100	110	110	100	110	110	110	110				
29						A	110	110	110	110	110	110	110	110	[110] B	110 K	110 K	110 K	110 K	110 K				
30						A K	110	110	110	110	110	110	110	100	110	110	110	110	110	110				
31																								
Median						120	110	110	110	110	110	110	110	110	110	110	110	110	110	120				
Count						30	27	27	27	27	29	29	29	29	29	29	28	28	28	28				

TABLE 71
IONOSPHERE DATA- 7

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of foE in Mc for June (Month) 1946

Records measured by: A. K. B., J. L. S.

TIME: 75°W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						1.6^{H}	(2.3)	2.7	(3.1)	3.3	(3.5)	[3.6]^{A}	3.7	[3.7]^{C}	[3.6]^{C}	(3.5)	[3.3]^{C}	(3.0)	(2.5)	(1.8)				
2						A	2.3	2.8	3.1	3.5	(3.5)	(3.8)	[3.8]^{B}	(3.8)	B	C	C	(2.9)	2.5	(1.6)				
3						(1.6)	2.2	2.8	(3.1)	3.4	3.4	(3.5)	C	C	(3.6)	[3.4]^{C}	(3.2)	(2.8)	2.3^{H}	A				
4						(1.8)	2.3	2.8	(3.1)	(3.4)	[3.6]^{A}	3.6	(3.7)	(3.7)	[3.6]^{C}	(3.4)	C	A	2.4^{H}	1.7				
5						A	A	2.8	(3.2)	3.4	3.5	(3.6)	(3.8)	[3.7]^{C}	(3.6)	[3.5]^{C}	3.3	(3.0)	2.4	1.8				
6						(1.6)	2.3	2.7	A	A	A	A	(3.8)	(3.8)	(3.7)	3.5	3.3	2.9	2.4	A				
7						A	(2.3)^{K}	(2.6)^{K}	(3.0)^{K}	[3.3]$^{A}_{K}$	3.4^{K}	[3.4]$^{A}_{K}$	[3.7]$^{A}_{K}$	[3.6]$^{C}_{K}$	[3.6]$^{C}_{K}$	(3.6)^{K}	3.3^{K}	2.9^{K}	(2.4)^{K}	1.6$^{H}_{K}$				
8						(1.6)^{K}	2.3^{K}	2.7^{K}	(2.9)^{K}	C^{K}	B^{K}	C^{K}	C^{K}	A^{K}	(3.5)^{K}	(3.4)^{K}	(3.2)^{K}	(2.9)^{K}	(2.3)^{K}	(1.7)^{K}				
9						A^{K}	(2.3)^{K}	(2.7)^{K}	[3.1]$^{C}_{K}$	[3.2]$^{C}_{K}$	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	(3.1)^{K}	2.8^{K}	(2.5)^{K}	A^{K}				
10						A^{K}	A	(2.8)	(3.0)	3.3	3.4	3.6	(3.6)	(3.7)	(3.5)	3.4	(3.2)	(2.8)	2.4	A				
11						C	(2.4)	2.7	(3.1)	3.3	[3.6]^{A}	(3.8)	A	A	A	A	(3.4)	2.9	2.4	(1.6)				
12						C	C	C	C	C	A	A	A	A	A	A	A	A	2.4	1.8^{H}				
13						(1.8)^{K}	(2.4)^{K}	[2.8]$^{A}_{K}$	(3.1)^{K}	(3.3)^{K}	[3.5]$^{A}_{K}$	(3.8)^{K}	3.8^{K}	[3.7]$^{C}_{K}$	[3.7]$^{A}_{K}$	(3.6)^{K}	3.3^{K}	(2.9)^{K}	2.5$^{K}_{K}$	A^{K}				
14						1.6^{K}	(2.4)^{K}	2.8^{K}	(3.2)	[3.4]^{A}	(3.5)	[3.6]^{A}	[3.9]^{C}	(3.9)	(3.7)	(3.6)	[3.4]^{C}	(3.1)	A					
15						(1.4)	2.3	[2.9]^{A}	[3.4]^{A}	A	A	A	(3.9)	A	A	A	3.4	[3.2]^{C}	(2.5)	A				
16						(1.4)	(2.4)^{K}	[2.9]$^{A}_{K}$	(3.3)$^{K}_{K}$	3.5^{K}	A^{K}	C^{K}	C^{K}	(3.6)^{K}	[3.7]$^{C}_{K}$	(3.7)^{K}	[3.5]$^{C}_{K}$	[3.1]$^{C}_{K}$	[2.4]$^{C}_{K}$	(1.8)^{K}				
17						(1.7)^{K}	C^{K}	A^{K}	(3.2)^{K}	A^{K}	A^{K}	C^{K}	C^{K}	(3.7)^{A}	[3.7]$^{C}_{K}$	(3.6)^{K}	3.4^{K}	[3.2]$^{C}_{K}$	(2.7)^{K}	A^{K}				
18						C	(2.3)	[2.9]^{A}	(3.2)	A	A	A	(3.8)	(3.6)	(3.8)	[3.7]^{C}	(3.5)	[3.2]^{C}	(2.5)	(1.8)^{K}				
19						C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	(3.5)^{K}	C^{K}	C^{K}	C	C^{K}	[3.6]$^{C}_{K}$	[3.3]$^{C}_{K}$	C^{K}	C^{K}	C^{K}				
20						C	[2.5]^{C}	(3.0)	[3.3]^{C}	3.5	C	C	C	C	C	C	C	C	C	1.9				
21						C	C	C	C	C	A	A	3.8	(3.8)	3.8)	[3.7]^{C}	[3.5]^{C}	(3.3)	[2.2]^{C}	1.8^{H}				
22						1.6^{H}	(2.3)	(3.0)	(3.4)	A	A	(3.9)	A	A	C	A	A	3.3	2.7	(1.8)				
23							A	(2.9)	3.4	[3.6]^{A}	(3.6)	A	A	A	A	A	A	A	(2.8)	A				
24						(1.6)	(2.4)	2.9	[3.3]^{A}	3.8	A	A	A	A	A	A	A	(3.1)	[2.7]^{A}	A				
25							A	A	[3.3]^{A}	3.4	A	A	A	A	A	3.8	[3.5]^{C}	(3.1)	2.7					
26							2.5	(2.9)	3.4	(3.7)	[3.8]^{A}	(3.7)	(3.7)	[3.7]^{C}	3.7	3.7	3.5	3.3	2.7	A				
27						1.6	(2.5)	2.9	(3.3)	(3.5)	3.8	[3.9]^{B}	[4.0]^{B}	(4.0)	(4.0)	(3.8)	(3.6)	3.3	(2.7)	(2.0)				
28						C	(2.4)	(3.1)	(3.3)	[3.6]^{C}	(3.7)	[3.8]^{B}	(3.8)	[4.0]^{B}	[4.0]^{C}	[3.9]^{A}	(3.5)	A	A	A				
29						A	A	(2.8)	(3.0)	(3.5)	(3.7)	3.7	(3.8)	B	B	B^{K}	[3.6]$^{C}_{K}$	[3.4]$^{C}_{K}$	(2.7)^{K}	A^{K}				
30						A^{K}	A	A	3.2	3.5	[3.6]^{A}	[3.6]^{A}	(3.8)	A	A	(3.8)	(3.5)	A	A	A				
31																								
Median						(1.6)	(2.3)	(2.8)	(3.2)	3.4	(3.5)	(3.6)	(3.8)	(3.7)	(3.7)	(3.6)	(3.4)	(3.1)	(2.5)	(1.8)				
Count						13	20	24	26	21	17	16	17	16	17	20	23	23	25	14				

TABLE 72

IONOSPHERE DATA

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of E_s in $\begin{cases} Mc \\ Kc \end{cases}$ for June (Month) 1946

Records measured by: A. K. B.
J. L. S.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1					29/120	37/120	54/120	41/120	48/110	38/120	39/120	39/100						29/100	35/120	57/110	53/110	47/110 H	53/110	36/110
2	23/120	28/110	30/110	37/110	29/100	29/110	(5)/110	53/	57/110	66/110	57/110						3.3/140	35/120	32/120	35/110			2.1/140	2.4/130
3	22/120		38/110	34/100	37/110	(29)/110	48/120	62/120	53/110	53/100	38/110	39/110				(5.2)/110	3.6/130	(3.7)/120	4.1/120	4.4/120	6.2/110	5.5/110	5.5/110	2.9/120
4	34/120 H	47/110	53/110	52/110	40/110	28/100	38/100	48/110	50/110	39/110	50/100	44/120	4.1/100	5.3/120	37/120	53/120	C	(3.6)/110	3.6/120	2.4/120	3.2/120	2.9/120	2.8/120	(2.1)/120
5						32/110	52/10 H	40/120	40/10	50/120	53/110	58/120	4.2/130		38/120	(3.8)/120			2.7/130	2.0/140		1.9/120	2.7/120	1.8/120
6	27/120	45/120	29/120	28/30 H	27/120	53/120	50/10	52/10	00	41/100	53/100	53/110	5.2/110	3.9/140	3.8/130	5.2/120	5.7/120	5.2/120	4.6/120	6.0/120	4.3/120	5.4/120	5.9/110	5.1/110
7	5.0/100	3.7/110	4.2/110	3.5/110	2.9/120	5.2/30	7.4/110	5.3/	(9.0)/10	10.0/00	(7.7)/110	5.3/00	8.2/100		5.3/30	(3.7)/110								
8	3.4/20	4.3/120	4.8/120	2.9/130	5.0/130	2.3/110	3	5.2/		5.2/30	3/100		3.9/110	3.9/110	3.4/40	3.9/	5.2/120	2.8/120	2.7/110	1.7/30				
9					1.0/40	3.4/10	(5.2)/10	5.3/6		4.3/20								3.4/120		2.8/20	2.3/130	3.7/120	3.4/20	3.8/110
10	5.3/110	5.8/110	2.7/	4.3/	2.8/	5.3/	4.0/10	4/	3.3/00	5.9/10	5.1/10	4.0/100	5.0/120			3.8/150	(5.1)/130	5.3/120	4.1/120	4.0/20	3.8/110	5.0/110	5.5/110	4.3/110
11	4.0/10	2.6/10	(2.1)/150			(2.3)/	3.6/	13.5/	4.4/10	4.9/	5.3/00	4.0/100	4.2/00	3.2/00	3.0/100	5.2/100	(3.7)/130	5.4/120	5.5/120	5.8/120	6.4/110	C	C	C
12	C	C	C	C	C		C	C	C	6.8/	5.8/100	5.1/100	5.3/100	4.3/110	5.4/110	5.7/100	8.0/100	4.7/100				(3.1)/130	2.7/140	3.7/120
13	3.3/30	2.7/140	2.8/	3.9/	2.4/	2.3/	3.7/	3.8/110	3.7/120	3.8/120	4.0/100		5.9/120	C	3.8/		(3.7)/20	(3.4)/130	2.7/120	(3.3)/120	2.9/20	3.8/120	2.9/	2.7/110
14	3.4/0	2.7/10		(2.9)/	2.3/	(3.8)/110	3.5/110	(4.2)/2	3.5/20	4.0/	5.2/110	4.1/110		5.3/30	4.1/	7.2/120	5.2/120	5.7/110	5.7/	5.0/10	5.3/	3.7/110	(4.0)/30	
15	5.0/120	3.5/130				(3.8)/120	4.1/120	4.1/120	5.3/100	(5.0)/	(5.0)/110	4.2/110	(3.5)/110	(5.6)/110	4.3/110	3.8/110			5.8/110	(5.8)/120	(5.7)/110	4.7/110	5.2/120 H	5.3/110
16		5.0/10	4.3/	3.4/	1.4/30	3.7/110	5.0/120	4.2/120	4.0/120	4.0/	4.2/120	(5.0)/110	(4.0)/	3.8/110	(3.8)/100		3.5/130							
17					1.5/2	(2.4)/20	(5.1)/10	(5.5)/	5.1/110	5.4/	5.2/			3.0/						3.4/120		4.4/120	4.8/110	
18						(3.7)/100	(2.8)/120	3.8/110	(4.6)/100	5.3/	4.1/110	(4.0)/110					3.5/120			2.3/150				
19						C	C	C	C	C	3.8/110							C	C	C	C	C	C	
20	4.7/110	5.0/10		2.3/10	2.9/110	4.0/110	3.8/110		4.0/110	5.7/120	C	C	C					C	C	2.3/130	1.7/130			
21					C	C	C	C	C	5.2/10	4.0/110	5.0/110	4.5/		/120		3/110		5.3/110	2.4/120			4.5/	5.3/110
22	(5.3)/10	2.2/110	2.3/110			4.2/100	(3.0)/110	3.9/110	3.9/110	5.3/10	3.3/100	(5.2)/110	5.4/	5.2/120			5/110	7.8/120	8.1/110	8.1/110	(5.2)/110	(5.3)/110	4.5/	(5.3)/110
23	5.2/10	5.3/10	2.9/10	(3.9)/110	3.3/10	3.7/100	5.2/100	5.3/110	7.0/110	6.8/10	7.9/10	9.1/110	9.2/00	7.6/100	6.2/110	7.2/10	8.1/110	7.1/100	3.8/110	3.7/110	4.3/110	5.4/110	5.3/10	4.1/110
24	4.8/10	3.9/100	3.8/10	2.7/10	2.8/10	3.1/100	5.2/100	4.4/120	5.2/120	5.3/10	5.1/0	5.3/0	5.1/10	4.9/110	5.3/110	4.0/10	3.8/110	5.3/100	4.4/110	4.9/120	5.7/20	5.3/10	2.8/120	2.8/110
25	3.7/10	3.5/110	2.9/10	3.0/100	2.2/100	3.8/110	3.8/100	3.9/110	5.3/10	7.8/100	10.7/100	5.3/100	5.2/10	5.3/100	3.9/120			3.2/120	6.8/100	6.9/10	2.9/20	4.2/10	5.3/10	4.3/10
26						2.9/10	2.9/100	5.0/100	3.8/10	5.2/10	4.2	(4.2)/20	4.3	(3.9)/10	3.9/120	5.3/130	11.0/120	8.9/120	5.3/120	5.6/10	3.3/10	4.2/10	4.3/10	5.7/10
27	5.7/10	2.9/10	3.7/10	2.9/100	2.9/100	(3.7)/10	2.9/10	3.8/130	5.3/20	4.1/20	5.2/20			4.0/10						2.3/10		2.7/120	4.4/10	7.0/10
28	7.2/100	5.3/10	5.3/10	4.3/10	3.8/10	2.8/100	4.0/10	4.6/10	3.8/100	4.3/20	5.3/20	10.9/20	5.2/20		4.1/120	4.2/120	6.8/10	6.9/10	7.3/10	6.8/10	4.2/10	4.3/100	3.4/100	3.9/10
29	2.9/10	5.3/10	5.2/10	3.9/10		3.7/10	3.7/10	3.5/10	3.6/10					4.0/20				3.5/120	3.6/10	5.3/10	4.0/10	3.8/10	5.7/10	5.3/10
30	5.7/100	6.6/10	8.0/10	5.6/10	4.9/100	5.3/100	4.5/100	4.5/10	6.2/10	7.7/10	10.0/10	6.6/100	(6.1)/10	5.3/10	4.3/10		5.7/20	8.0/10	5.2/10	5.0/10	8.3/10	5.3/10	3.7/10	6.4/10
31																								
Median	3.4	2.9	2.9	2.9	2.6	3.7	4.0	4.2	4.6	5.2	5.1	4.2	4.2	4.0	3.8	3.8	3.7	3.5	3.7	3.7	3.2	4.0	4.0	3.5
Count	29	29	29	29	28	27	27	27	27	29	29	28	29	28	29	29	27	29	28	29	29	28	28	29

TABLE 73
IONOSPHERE DATA - 9

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-MI500 for June (Month) 1946

Records measured by: A.K.B. J.L.S.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(1.8)	1.8 F	1.8	1.8 F	1.8 F	(2.2)	(2.0) F	2.1	2.0	2.0	(2.2)	1.9	1.8	1.8	1.9	1.9	1.9	C	2.0	C	C	(2.0)	(1.9)	1.8
2	1.8	2.0	1.8	1.8	1.8	2.0	2.3	1.9	2.0	2.1	2.1	(2.0)	1.9	1.8	1.9	1.9	1.9	1.9	2.0	2.0	1.9	(1.9)	2.0	2.0
3	1.8	1.8	1.9	1.9	1.9	2.0	2.1	2.1	2.0	2.1	1.9	2.0	1.9	1.8	C	1.9	(2.0)	1.9	1.9	2.0	2.0	(1.9)	C	(1.9)
4	1.9	1.8	1.8	1.8	1.8	1.9	(2.1)	(2.2) J	2.3 H	1.8	(1.8)	1.8	1.8	1.8	1.9	2.0	C	2.0	2.0	(2.0)	C	(2.0)	(2.0) J	1.9
5	1.9	1.9	1.4	(1.9) J	1.9	1.9	(2.1)	2.2	1.8	1.9	1.9	(2.0)	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	2.0	1.9	1.9	(1.9) J
6	(2.1)	1.9	1.8	1.8	1.9	1.9	(1.9)	A	1.6	(1.8)	(1.8)	(1.9)	C	C	1.7	1.9	1.9	1.8	2.0	1.9	1.9	(1.8) J	1.8	1.9
7	1.9	1.9	1.8	1.7 F	(1.8) F	1.7	1.9 K	1.8 K	1.8 K	A K	1.6 K	(1.8) K	A K	1.8 K	1.6 K	(1.7) K	1.8 K	1.9 K	1.9 K	2.0 K	1.9 K	1.8 K	1.7 K	1.8 K
8	1.8 K	1.9 K	1.8 K	1.8 K	(1.8) F K	2.0 K	2.1 K	1.8 K	G K	1.6 K	1.5 K	1.5 K	(1.4) K	(1.6) K	(1.7) K	(1.7) K	1.8 K	1.7 K	1.9 K	(2.1) J K	(2.2) J K	(1.9) K	(1.9) K	(1.6) F K
9	1.8 F K	(1.7) F K	(1.8) F K	(1.7) F K	(1.8) F K	1.8 K	G K	G K	G K	G K	G K	G K	G K	(1.5) K	(1.5) K	1.7 K	1.8 K	1.9 K	1.9 K	2.0 K	1.9 K	1.9 K	1.9 K	1.9 K
10	2.0 K	(1.9) K	1.9 F K	1.9 F K	2.0 F K	2.0 K	2.1	2.2	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	2.0	1.9	2.0	C	(2.1) J	(1.9)	1.8
11	1.8	1.8	1.8	1.8	1.7	1.8	1.7	2.0	(1.9)	(2.0)	1.8	(2.0)	(1.8)	C	(1.8)	2.0	1.9	1.9	2.0	2.0	1.9	C	C	C
12	C	C	C	C	C	C	C	C	C	C	A	(1.9)	(1.6)	1.7	1.8	1.8	A	1.9	(1.9)	(1.9)	2.0 K	C K	(1.9) K	2.0 K
13	1.7 K	(1.8) J	1.8 K	1.9 K	1.7 K	1.9 K	(1.9) K	(1.7) K	1.7 K	1.7 K	(1.5) K	G K	G K	C K	1.6 K	1.6 K	1.6 K	1.8 K	1.9 K	2.1 K	(2.1) K	(1.9) K	(1.9) K	(1.8) K
14	(1.8) F K	1.8 K	1.8 K	(1.8) F K	(1.9) F K	2.0 F H K	1.8 K	2.1 K	1.8	C	1.8	1.9	1.9	1.9	1.8	1.9	C	C	C	C	C	C	C	C
15	(1.9)	(1.9)	1.9	1.7	1.7	(1.7)	(1.5)	(2.0)	C	C	C	C	C	C	C	(2.0)	C	C	C	C	C	C	C	C
16	1.8	1.9	1.8	1.9	1.8	1.8	1.8 K	2.0 K	(1.8) K	(1.6) K	(1.6) K	C K	C K	C K	C K	(1.8) K	C K	C K	C K	C K	C K	C K	C K	(1.8) K
17	(1.7) K	(2.0) K	1.7 K	(1.8) K	2.0 K	1.7 K	G K	1.6 K	1.5 K	(1.6) K	(1.7) K	G K	G K	G K	1.6 K	1.6 K	1.7 K	1.7 K	1.8 K	(2.1) K	(2.0) K	(1.9) K	(1.9) K	(1.9) K
18	1.8 K	1.7	1.8	(1.9)	1.8 F	1.7	1.8	1.8	(2.0)	C	C	(2.0)	C	1.7	1.6	1.8	1.8	1.8	1.7	2.0 K	1.9 K	1.8 K	1.7 K	C K
19	1.7 K	(1.8) K	1.9 K	1.9 F K	(1.9) F K	C K	C K	C K	C K	C K	(1.7) K	(1.7) K	(1.5) K	C K	(1.8) K	1.7 K	C K	C K	C K	C K	C K	C K	C	C
20	C	C	C	C	C	C	C	1.8	(1.8)	(2.0)	C	C	C	C	C	C	C	C	C	C	C	C	C	C
21	(1.8)	1.6	(1.9)	C	C	C	C	C	C	C	(1.6)	C	C	C	C	C	1.8	1.8	C	(1.9)	(1.9)	1.8	1.8	1.8
22	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.6	C	C	C	C	(1.6)	1.7 J	1.9	A	(2.0) J	(1.8) J	(1.7) J	(1.8)	1.9
23	(1.9)	1.9	1.8	1.7	1.7	(1.8)	2.1	1.9	1.9	C	C	C	(1.8)	C	1.7	1.9	1.8	1.9	1.8	(1.8)	(1.9)	(1.9)	(1.7)	(1.8)
24	(1.6) J	2.0	1.8	1.9	1.9	1.9	1.9	2.2	1.9	(1.9)	(2.1)	(1.8)	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	(1.8)	1.9
25	(1.7) J	1.7	(1.7) J	1.7	1.9	1.9	2.0	1.9	(1.9) J	1.8	A	1.7	1.7	1.6	1.6	1.7	C	(1.8)	1.8	1.8	(2.0)	(1.7)	1.7	1.7
26	(1.8)	1.7	(1.7) J	(1.9) J	1.7	1.7 H	1.8	2.0	(1.8)	(1.8)	1.9	C	1.8	1.8	(1.7)	1.7	A	A	1.8	(1.8)	(1.9)	(1.8)	1.8	1.8
27	1.8	1.8	1.7	1.7	1.8	(1.7)	(1.9)	G	(1.9)	(1.9)	1.6	(1.7)	B	1.5	1.5	1.6	1.6	1.7	1.8	1.7	1.8	(1.8)	(1.8)	(1.7) J
28	(1.7)	(1.7)	(1.7) J F	(1.8) F	(1.7) J	1.8	1.8	2.0	1.6	(1.5)	C	(1.8)	(1.6)	G	(1.6) J	(1.6) J	1.8	1.9	1.7	1.8	(1.8) J	1.7	1.8 J	(1.7)
29	1.6	1.6	1.6 J	1.7	1.9	2.0	1.8	(1.9)	1.8	(1.7)	(1.6)	(1.6)	1.6	(1.5)	(1.6)	1.6 K	1.6 K	(1.7) K	(1.9) K	(1.9) K	(1.7) K	(1.8) K	(1.8) K	1.7 K
30	(1.6) K	(1.6) K	1.6 F K	(1.7) K	1.7 F K	1.8 K	1.7	1.9	1.7	A	A	A	C	(1.7)	(1.7)	1.7	1.7	1.8	1.9	1.9	1.9	1.8	1.8 J	1.8 J
31																								
Median	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.8	1.9	2.0	1.9	(1.8)	(1.8)	1.8
Count	28	28	28	29	27	26	26	26	26	21	22	22	20	20	24	28	21	29	23	24	22	23	23	24

TABLE 74
IONOSPHERE DATA- 10

Washington, D. C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

Hourly values of F2-M3000 for June 19 6
(Month)

Records measured by: A.K.B.
J.L.S.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(2.7)	2.7[F]	2.7	2.7[F]	2.8[F]	(3.2)	(2.9)[F]	3.1	2.9	2.9	(3.2)	2.8	2.8	2.8	2.9	2.8	2.9	C	3.0	C	C	(2.9)	(2.9)	2.7
2	2.8	3.0	2.7	2.7	2.8	3.0	3.3	2.8	3.0	3.1	3.1	(3.0)	2.9	2.8	2.8	2.9	2.8	2.9	3.0	3.0	2.9	(2.8)	3.0	2.9
3	2.8	2.8	2.8	2.9	2.9	3.0	3.1	3.1	2.9	3.1	2.9	3.0	2.9	2.7	C	2.8	(2.9)	2.9	2.9	2.9	3.0	(2.9)	C	(2.9)
4	2.8	2.8	2.8	2.8	2.8	2.9	(3.1)	(3.2)[J]	2.9[H]	2.7	(2.8)	2.7	2.8	2.8	2.8	3.0	C	2.9	3.0	(3.0)	C	(3.0)	(2.9)[J]	2.9
5	2.9	2.9	2.9	(2.9)[J]	2.9	2.9	(3.1)	3.2	2.8	2.9	2.9	(3.0)	2.8	2.9	2.8	2.9	2.7	2.8	2.7	2.9	3.0	2.8	2.9	(2.9)[J]
6	(3.1)	2.9	2.8	2.7	2.9	2.9	(2.9)	A	2.5	(2.7)	(2.7)	(2.9)	C	C	2.7	2.8	2.9	2.8	3.0	2.9	2.9	(2.7)[J]	2.8	2.9
7	2.9	2.9	2.8	2.7[F]	(2.7)[F]	2.7	2.9[K]	2.8[K]	2.7[K]	A[K]	2.4[K]	(2.8)[K]	A[K]	2.7[K]	2.5[K]	(2.7)[K]	2.7[K]	2.8[K]	2.9[K]	2.9[K]	2.9[K]	2.7[K]	2.6[K]	2.7[K]
8	2.7[K]	2.9[K]	2.8[K]	2.7[K]	(2.7)[F,K]	3.0[K]	3.1[K]	2.8[K]	G[K]	2.5[K]	2.2[K]	2.2[K]	(2.2)[K]	(2.4)[K]	(2.5)[K]	(2.6)[K]	2.8[K]	2.7[K]	2.8[K]	(3.1)[J,K]	(3.2)[J,K]	(2.9)[K]	2.8[K]	(2.5)[F,K]
9	2.7[F,K]	(2.6)[F,K]	(2.8)[F,K]	(2.7)[F,K]	(2.8)[F,K]	2.8[K]	G[K]	G[K]	G[K]	G[K]	G[K]	G[K]	G[K]	(2.2)[K]	(2.3)[K]	2.6[K]	2.7[K]	2.8[K]	2.9[K]	3.0[K]	2.8[K]	2.9[K]	2.9[K]	2.9[K]
10	3.0[K]	(2.9)[K]	2.9[F,K]	2.9[F,K]	3.0[F,K]	3.0[K]	3.1	3.2	2.9	2.8	2.9	2.9	2.8	2.7	2.8	2.8	2.9	2.9	2.9	3.0	C	(3.1)[J]	(2.9)	2.8
11	2.8	2.7	2.8	2.8	2.7	2.7	2.6	3.0	(2.9)	(3.0)	2.8	(3.0)	(2.8)	C	(2.7)	3.0	2.9	2.9	2.9	3.0	2.9	C	C	C
12	C	C	C	C	C	C	C	C	C	C	A	(2.9)	(2.5)	2.7	2.8	2.8	A	2.8	(2.9)	(2.9)	3.0[K]	C[K]	(2.8)[K]	3.0[K]
13	2.6[K]	(2.8)[F,K]	2.7[K]	2.9[K]	2.7[K]	2.9[K]	(2.8)[K]	(2.7)[K]	2.6[K]	2.6[K]	(2.3)[K]	G[K]	G[K]	C[K]	2.4[K]	2.5[K]	2.4[K]	2.7[K]	2.9[K]	3.1[K]	(3.1)[K]	(2.8)[K]	(2.8)[K]	(2.8)[K]
14	(2.8)[F,K]	2.8[K]	2.7[K]	(2.7)[F,K]	(2.8)[F,K]	3.0[F,H,K]	2.8[K]	3.1[K]	2.8	C	2.8	2.8	2.8	2.8	2.8	2.9	C	C	C	C	C	C	C	C
15	(2.9)	(2.8)	2.9	2.6	2.7	(2.6)	(2.4)	(2.9)	C	C	C	C	C	C	C	(3.0)	C	C	C	C	C	C	C	C
16	2.7	2.8	2.8	2.9	2.8	2.8	2.7[K]	3.0[K]	(2.8)[K]	(2.5)[K]	(2.5)[K]	C[K]	C[K]	C[K]	C[K]	(2.7)[K]	C[K]	C[K]	C[K]	C[K]	C[K]	C[K]	C[K]	(2.7)[K]
17	(2.6)[K]	(3.0)[K]	2.5[K]	(2.8)[K]	2.9[K]	2.6[K]	G[K]	2.4[K]	2.3	(2.5)[K]	(2.6)[K]	G[K]	G[K]	G[K]	2.4[K]	2.4[K]	2.6[K]	2.7[K]	2.8[K]	(3.1)[K]	(3.0)[K]	(2.9)[K]	(2.9)[K]	(2.9)[K]
18	2.7[K]	2.6	2.7	(2.9)	2.8[F]	2.7	2.8	2.7	(2.9)	C	C	(3.0)	C	2.5	2.5	2.7	2.7	2.8	2.7	3.0[K]	2.9[K]	2.8[K]	2.6[K]	C[K]
19	2.6[K]	(2.7)[K]	2.8[K]	2.8[F,K]	(2.9)[F,K]	C[K]	C[K]	C[K]	C[K]	C[K]	(2.7)[K]	(2.6)[K]	(2.4)[K]	C[K]	(2.7)[K]	2.5[K]	C[K]	C[K]	C[K]	C[K]	C[K]	C[K]	C	C
20	C	C	C	C	C	C	C	2.8	(2.7)	(3.0)	C	C	C	C	C	C	C	C	C	C	C	C	C	C
21	(2.8)	2.5	(2.8)	C	C	C	C	C	C	C	(2.5)	C	C	C	C	C	2.7	2.7	C	(2.9)	(2.9)	2.7	2.7	2.7
22	2.7	2.8	2.7	2.8	2.7	2.8	2.7	2.7	2.7	2.7	2.5	C	C	C	C	(2.4)	(2.6)[J]	2.8	A	(2.9)[J]	(2.8)[J]	(2.7)[J]	(2.8)	2.8
23	(2.8)	2.9	2.8	2.5	2.6	(2.7)	3.1	2.9	2.9	C	C	C	(2.8)	C	2.7	2.8	2.8	2.8	2.8	(2.8)	(2.9)	(2.8)	(2.6)	(2.7)
24	(2.4)[J]	3.0	2.8	2.8	2.8	2.9	3.0	3.2	2.9	(2.9)	(3.1)	(2.7)	2.7	2.8	2.7	2.7	2.7	2.7	2.8	2.7	2.7	2.7	(2.8)	2.8
25	(2.6)[J]	2.6	(2.4)[J]	2.5	2.8	2.9	3.0	2.8	(2.9)[J]	2.8	A	2.6	2.6	2.5	2.5	2.7	C	(2.7)	2.8	2.8	(2.9)	(2.6)	2.6	2.6
26	(2.7)	2.6	(2.6)[J]	(2.8)[J]	2.6	2.6[H]	2.8	3.0	(2.6)	(2.7)	2.8	C	2.8	2.7	(2.7)	2.7	A	A	2.7	(2.7)	(2.8)	(2.7)	2.7	2.7
27	2.7	2.8	2.7	2.6	2.7	(2.7)	(2.7)	G	(2.9)	(2.8)	2.5	(2.6)	B	2.3	2.3	2.4	2.5	2.6	2.7	2.6	2.7	(2.7)	(2.7)	(2.6)[J]
28	(2.6)	(2.5)	(2.7)[F]	(2.6)[F]	(2.7)[J]	2.7	2.8	3.0	2.4	(2.3)	C	(2.7)	(2.3)	G	(2.5)[J]	(2.4)[J]	2.7	2.9	2.6	2.8	(2.8)[J]	2.7	(2.7)[J]	(2.6)
29	2.5	2.5	(2.5)[J]	2.6	2.8	2.9	2.8	(2.9)	2.7	(2.7)	(2.5)	(2.5)	2.4	(2.4)	(2.5)	2.4[K]	2.5[K]	(2.6)[K]	(2.9)[K]	(2.9)[K]	(2.6)[K]	(2.8)[K]	(2.7)[K]	2.7[K]
30	(2.4)[K]	(2.5)[K]	2.5[F,K]	(2.6)[K]	2.6[F,K]	2.8[K]	2.7	2.9	2.6	A	A	A	C	(2.6)	(2.7)	2.6	2.7	2.8	2.8	2.8	2.9	2.7	(2.7)[J]	(2.8)[J]
31																								
Median	2.7	2.8	2.8	2.7	2.8	2.8	2.8	2.9	2.8	2.7	2.7	(2.8)	2.8	2.7	2.7	2.7	2.7	2.8	2.9	2.9	2.9	(2.8)	(2.8)	2.8
Count	28	29	28	27	27	26	26	26	26	21	22	22	20	20	24	28	21	23	23	24	22	23	23	21

TABLE 75
IONOSPHERE DATA- II

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of FI-M3000 for June (Month) 1946

Records measured by: A.K.B. J.L.S.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							L	(3.6)	3.7	3.4	3.7	3.8	(3.8)	3.4^{H}	(3.7)	3.3	3.4	(3.5)	L					
2							L	3.3	A	A	A	(3.8)	3.8	3.5	3.6	3.4	3.4	3.4	L					
3							L	(3.5)	(3.4)	3.6	3.7	3.6^{H}	3.8^{H}	(3.6)^{H}	3.6^{H}	3.4	3.5	(3.5)	L					
4						L	3.7	3.5	3.5	(3.3)	(3.8)^{H}	3.8^{H}	3.5	3.5	3.6^{H}	3.5	C	3.5	L					
5							(3.7)	3.4	L	3.6	3.6	A	3.8^{H}	3.7^{H}	3.6	3.4	(3.5)	3.3	L					
6							A	A	(3.3)	3.4	3.6	3.6	3.6	3.7	3.7	3.7	(3.5)	(3.4)	L					
7						3.0	3.3^{K}	3.4^{K}	3.4^{K}	A^{K}	A^{K}	3.6^{K}	A^{K}	3.7^{K}	3.6^{K}	3.5^{K}	3.6^{K}	3.4^{K}	3.4^{K}					
8							(3.2)^{K}	3.5^{K}	3.6^{K}	3.6$^{H}_{K}$	3.8^{K}	3.8$^{H}_{K}$	3.6^{K}	3.6^{K}	(3.6)^{K}	3.8^{K}	(3.2)^{K}	(3.5)^{K}	(3.5)^{K}					
9							3.3^{K}	3.5^{K}	3.5^{K}	3.7^{K}	3.9^{K}	(4.0)^{K}	3.9^{K}	3.6^{K}	3.7^{K}	3.8^{K}	3.5^{K}	(3.3)^{K}	3.4^{K}	L^{K}				
10						K	L	3.6	3.9	3.7	3.7	3.7^{H}	(3.7)^{H}	3.8	3.6^{H}	3.4	3.5	3.3	L					
11						L	L	3.4	(3.5)	3.7^{H}	A	3.6	3.8	3.5	(3.6)^{H}	3.5	3.4	3.5	A					
12							C	C	C	C	A	3.7	3.5	3.5	3.5	A	A	(3.3)	3.5	L				
13							LH^{K}	3.4^{K}	3.6^{K}	3.8$^{H}_{K}$	3.9$^{H}_{K}$	3.9^{K}	3.8^{K}	C^{K}	3.7^{K}	3.5^{K}	3.6^{K}	(3.4)^{K}	3.2^{K}	L^{K}				
14							L^{K}	3.4^{K}	3.4	3.5	4.0	3.8	3.6	3.5	A	A	C	(3.5)	A					
15							(3.6)	3.4	(3.5)	3.7	3.8	3.7	C	A	3.5	3.5	(3.5)	(3.4)	A					
16							(3.2)^{K}	3.8^{K}	(3.8)$^{H}_{K}$	(3.6)^{K}	(3.9)^{K}	(4.0)$^{H}_{K}$	3.5^{K}	(3.9)^{K}	(3.4)$^{H}_{K}$	(3.4)$^{H}_{K}$	(3.3)$^{H}_{K}$	(3.4)$^{H}_{K}$	(3.4)^{K}					
17							2.8^{K}	3.4^{K}	(3.7)^{K}	3.6^{K}	(4.1)^{K}	(4.1)^{K}	3.9^{K}	(3.9)^{K}	(4.0)$^{H}_{K}$	(3.5)^{K}	3.6^{K}	3.3^{K}	3.5^{K}					
18							3.3	3.3^{H}	3.9^{H}	A	3.8	(3.9)	(4.1)	(3.8)	3.4	3.4	3.4	3.3	L					
19							C^{K}	C^{K}	C^{K}	C^{K}	3.6^{K}	(3.7)$^{H}_{K}$	(3.5)^{K}	(3.6)$^{H}_{K}$	3.5^{K}	3.4^{K}	3.5^{K}	C^{K}	C^{K}					
20							C	(3.4)	3.6	(3.2)	C	C	C	C	C	C	C	C						
21							C	C	C	C	3.6	3.7	3.6	(3.7)	(3.8)	(3.6)	3.5	3.3	C					
22							(3.2)	3.3	3.4	3.7	3.6	3.8	A	(3.9)^{H}	C	(3.6)	(3.5)	A	A					
23							3.5	3.5	(3.1)	C	C	C	C	C	(3.4)	(3.3)	(3.3)	(3.4)	LH					
24							L	L	(3.6)	(3.4)	3.4	(4.1)	3.7	C	3.7	3.4	(3.3)	3.3	L					
25						L	L	L	(3.8)	C	A	3.6	3.4	(3.4)	3.3	3.4	C	(3.2)	L					
26							L	(3.3)	3.4	3.5	3.3	(3.6)^{H}	3.6	(3.4)	3.7^{H}	(3.3)	A	A	L					
27						L	L	(3.2)	(3.5)	3.6	3.4	3.7	3.4	3.6	3.6	3.5^{H}	3.3	3.3	L	L				
28							L	L	3.4	3.4	A	3.5	3.5	3.5^{H}	C	3.3	A	3.6	L					
29						L	(4.1)	4.0	3.2^{H}	(3.2)^{H}	3.5^{H}	3.6	3.6	3.4	(3.5)	3.4^{K}	3.4^{K}	3.3^{K}	L^{K}					
30						K	L	3.3	3.4	A	A	A	A	3.4	(3.7)	3.4	3.6	A	L					
31																								
Median							3.3	3.4	3.5	3.6	3.7	3.7	3.6	3.6	3.6	3.4	3.5	3.4	3.4					
Count							12	23	25	21	21	26	24	25	26	27	23	25	7					

TABLE 76
IONOSPHERE DATA- 12

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of E-MI500 for June (Month) 1946

Records measured by: A.K.B. J.L.S.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						(4.4)	A	(4.3)	(4.4)	4.3	(4.3)	A	(4.4)	C	C	(4.1)	C	(4.1)	(4.2)	A				
2						A	(4.4)	4.4	4.3	(4.3)	(4.5)	(4.4)	B	(4.4)	B	C	C	(4.3)	4.2	(4.3)				
3						(4.3)	(4.2)	4.2	(4.2)	4.5	4.5	C	C	C	4.3	C	(4.2)	(4.3)	4.2^{M}	A				
4						(4.1)	(4.2)	4.3	(4.3)	(4.4)	A	(4.4)	A	(4.3)	C	(4.3)	C	A	(4.1)^{M}	3.9				
5						A	A	4.2	(4.3)	4.2	(4.2)	(4.2)	(4.1)	C	C	C	4.1	(4.2)	4.3	(4.1)				
6						A	(4.3)	(4.4)	A	A	A	A	(4.2)	(4.2)	(4.1)	4.3	4.2	(4.3)	(4.2)	A				
7						A	A^{K}	(4.2)^{K}	(4.2)^{K}	A^{K}	4.4^{K}	A^{K}	A^{K}	C^{K}	C^{K}	(4.2)^{K}	4.1^{K}	4.3^{K}	(4.3)^{K}	(4.2)$^{K}_{M}$				
8						(4.0)^{K}	(4.2)^{K}	4.2^{K}	(4.3)^{K}	C^{K}	B^{K}	C^{K}	C^{K}	A^{K}	(4.2)^{K}	C^{K}	(4.3)^{K}	(4.2)^{K}	(4.3)^{K}	(4.2)^{K}				
9						A^{K}	ΔF^{K}	(4.2)^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	(4.1)^{K}	4.2^{K}	(4.2)^{K}	A^{K}				
10						A^{K}	A	(4.4)	(4.2)	4.3	4.4	4.2	(4.3)	(4.3)	(4.2)	4.1	(4.1)	(4.2)	4.2	A				
11						C	(4.4)	4.3	(4.3)	(4.4)	A	(4.5)	A	A	A	A	(4.1)	(4.1)	4.2	A				
12						C	C	C	C	C	A	A	A	A	A	A	A	A	(4.2)	(4.1)^{M}				
13						(4.5)^{K}	(4.4)^{K}	A^{K}	(4.3)^{K}	(4.5)^{K}	A^{K}	(4.4)^{K}	4.5^{K}	C^{K}	A^{K}	(4.2)^{K}	4.2^{K}	(4.2)^{K}	4.2$^{K}_{M}$	A^{K}				
14						(4.2)^{K}	(4.0)^{K}	4.1^{K}	(4.3)	A	(4.2)	A	C	(4.3)	(4.3)	4.2	C	(4.3)	A	A				
15						(4.1)	(4.3)	(4.3)	A	A	A	A	(4.4)	A	A	A	4.3	C	(4.2)	A				
16						(4.3)	(4.2)^{K}	A^{K}	(4.5)$^{K}_{M}$	4.2^{K}	A^{K}	C^{K}	C^{K}	(4.4)^{K}	C^{K}	(4.3)^{K}	C^{K}	C^{K}	C^{K}	(4.2)^{K}				
17						(4.4)^{K}	C^{K}	A^{K}	A^{K}	A^{K}	A^{K}	C^{K}	C^{K}	(4.2)^{K}	C^{K}	(4.3)^{K}	4.2^{K}	C^{K}	(4.2)^{K}	A^{K}				
18						C	(4.4)	A	C	A	A	A	(4.3)	(4.3)	(4.3)	C	(4.4)	C	(4.2)	(4.2)^{K}				
19						C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	(4.5)^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}				
20						C	C	(4.2)	C	4.4	C	C	C	C	C	C	C	C	C	4.1				
21						C	C	C	C	C	A	A	4.5	(4.5)	(4.4)	C	C	(4.3)	C	(4.2)				
22						(3.9)^{M}	A	(4.2)	(4.1)	A	A	(4.4)	A	A	C	A	A	4.3	4.3	A				
23							A	(4.2)	4.3	A	(4.4)	A	A	A	A	A	A	A	(4.3)	A				
24						(4.1)	(4.2)	(4.2)	A	4.2	A	A	A	A	A	A	A	(4.2)	A	A				
25							A	A	A	(4.2)	A	A	A	A	A	4.0	C	(4.2)	4.3					
26							4.0	(4.1)	4.0	(4.1)	A	(4.2)	(4.1)	C	4.3	4.1	4.0	4.1	4.1	A				
27						(4.0)	(4.3)	4.0	(4.2)	(4.2)	4.0	B	B	4.1	(4.2)	(4.3)	(4.2)	4.3	(4.3)	(4.0)				
28						C	(4.0)	(4.0)	(3.9)	C	(4.2)	B	(4.0)	B	A	A	(4.2)	A	A	A				
29						A	A	(4.3)	(4.2)	(4.1)	(4.0)	4.2	(4.1)	B	B	B^{K}	C^{K}	C^{K}	(4.3)^{K}	A^{K}				
30						A^{K}	A	A	4.4	4.4	A	A	(4.2)	A	A	(4.2)	(4.2)	A	A	A				
31																								
Median						(4.3)	(4.2)	(4.3)	(4.3)	4.3	(4.4)	(4.4)	(4.2)	(4.3)	(4.3)	(4.2)	(4.2)	(4.2)	(4.3)	(4.2)				
Count						12	15	21	19	16	12	9	12	10	9	13	16	18	22	11				

Table 77

Ionospheric Storminess, June 1946

Day	Ionosphere Characters* 00-12 G.C.T.	12-24 G.C.T.	Principal Storms Beginning G.C.T.	End G.C.T.	Geomagnetic Characters** 00-12 G.C.T.	12-24 G.C.T.
June						
1	2	3			2	1
2	1	3			1	1
3	0	3			1	0
4	1	2			1	1
5	0	3			1	2
6	0	2			3	2
7	2	4	1100	----/	2	4
8	3	5	----	----	3	4
9	3	5	----	----	3	2
10	2	2	----	1100	1	2
11	2	3			3	2
12	***	1			3	3
13	3	5	0100	----	3	2
14	3	1	----	1300	2	1
15	1	1			2	2
16	2	5	1100	----	2	3
17	3	5	----	----	3	2
18	2	1	----,	0600	3	3
19	4	4	0000	----	4	3
20	1	***	----	0300	2	2
21	2	2			3	2
22	1	2			2	2
23	2	0			2	0
24	1	3			1	1
25	1	1			2	2
26	0	1			2	2
27	1	3			2	3
28	2	3			3	3
29	2	2	2000	----	3	4
30	4	1	----	1100	1	1

*Ionosphere character figure (I-figure) for ionospheric storminess at Washington, D.C., during 12-hour period, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

**Average for 12 hours of American magnetic K-figure, determined by a number of observatories, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

/Dashes indicate continuing storm.

***No readable record.

Table 78

Sudden Ionosphere Disturbances Observed at Washington, D.C.

Day	GCT Beginning	GCT End	Location of transmitters	Relative intensity at minimum *	Other Phenomena
June					
15	1912	1940	Ohio, D.C., England, Mexico New Brunswick, Surinam, Chile, Hawaii	0.0	
16	1232	1305	Ohio, D.C., New Brunswick	0.05-	Terr. mag. pulse ** 1228-1237
18	2018	2040	Ohio, D.C., Mexico. Surinam Chile, Hawaii	0.1	
18	2138	2150	Ohio, D.C., Mexico, Surinam Hawaii	0.1	
22	1822	2005	Ohio, D.C., Mexico, England, Surinam, Chile	0.02	Terr. mag. pulse ** 1818-1830
27	1557	1845	Ohio, D.C., Mexico, Ontario, England, Chile	0.02	
29	1704	***	Ohio, D.C., Mexico, Ontario Chile, Hawaii	0.05	
29	1842	1905	Ohio, D.C., Mexico, Ontario Chile, Hawaii	0.2	

* Ratio of received field intensity during SID to average field intensity before and after for station W8XAL, 6060 kilocycles, 500 kilometers.

** As observed on Cheltenham magnetogram of the United States Coast and Geodetic Survey.

*** Incomplete recovery of SID

Table 79

Provisional Radio Propagation Quality Figures

May 1946
Compared with CRPL Warnings and CRPL Probable Disturbed Period Forecasts

Day	North Atlantic				North Pacific			
	Quality Figure	CRPL* Warning	CRPL** Probable Disturbed Period Forecast	Geomagnetic K_A	Quality Figure	CRPL* Warning	CRPL** Probable Disturbed Period Forecast	Geomagnetic K_A
	01-12 GCT / 13-24 GCT	01-12 GCT / 13-24 GCT		01-12 GCT / 13-24 GCT	01-12 GCT / 13-24 GCT	01-12 GCT / 13-24 GCT		01-12 GCT / 13-24 GCT
1	6 7			1 2	5 (4)			1 2
2	6 7			2 1	6 (4)			2 1
3	6 7			1 1	5 (4)			1 1
4	5 6	X	X	2 1	6 (4)	X	X	2 1
5	6 6		X	1 2	7 5		X	1 2
6	(4)5	X X	X	4 3	5 (4)	X X	X	4 3
7	(4)5	X X		4 2	5 (4)	X X		4 2
8	(4)5	X X		4 3	5 6	X X		4 4
9	(4)5	X X		4 4	(4)(4)	X X		4 4
10	(4)5	X X		3 3	5 5	X X		3 3
11	5 5			4 3	6 6			4 3
12	(4)5			2 2	5 6			2 2
13	(4)6			2 1	6 6			2 1
14	6 6			1 1	7 7			1 1
15	6 6			1 1	7 6			1 1
16	6 6			2 2	8 7			2 2
17	6 6			2 2	7 6			2 2
18	5 6			3 2	7 6			3 2
19	6 6	X		1 0	6 6	X		1 0
20	5 6		X	1 3	7 (4)		X	1 3
21	(4)5	X	X	4 3	5 (4)	X	X	4 3
22	(3)(4)	X X	X	4 3	(4) 5	X X	X	4 3
23	(3)5	X X		3 4	5 6	X X		3 4
24	(4)5	X X		3 3	5 5	X X		3 3
25	5 6	X X	X	3 2	6 7	X X	X	3 2
26	6 6	X X	X	2 2	5 (4)	X X	X	2 2
27	6 7			1 1	7 8			1 1
28	6 7			2 2	6 8			2 2
29	6 6			2 1	6 8			2 1
30	6 7			1 2	6 6			1 2
31	5 7			3 2	6 8			3 2
Score:								
H		8	3			6	6	
M		3	8			5	5	
G		16	15			14	18	
(S)		2	3			4	1	
S		2	2			2	1	

Quality Figure Scale:
- 1 = Useless
- 2 = Very poor
- 3 = Poor
- 4 = Poor to fair
- 5 = Fair
- 6 = Fair to good
- 7 = Good
- 8 = Very good
- 9 = Excellent

Symbols
- X = Warning given or probable disturbed date.
- H = Quality 4 or worse on day or half day of warning.
- M = Quality 4 or worse on day or half day of no warning.
- G = Quality 5 or better on day of no warning.
- (8)= Quality 5 on day of warning.
- S = Quality 6 or better on day of warning.
-)= Quality 4 or worse (disturbed).

Geomagnetic K_A on the standard scale of 0 to 9, 9 representing the greatest disturbance.

* Broadcast on WWV, Washington, D. C. Times of warnings recorded to nearest half-day as broadcast.

** In addition to dates marked X, the following were designated as probable disturbed days on forecasts more than eight days in advance of said dates: May 11, 12, 13, 23.

Table 80

Daily Median Values of American Relative Sunspot Numbers *

June 1946

Date	No.	Date	No.
1	32	16	76
2	35	17	101
3	34	18	112
4	28	19	92
5	53	20	106
6	65	21	89
7	66	22	96
8	64	23	101
9	66	24	120
10	66	25	102
11	53	26	88
12	78	27	94
13	60	28	74
14	61	29	77
15	96	30	79

No. Days 30 Mean 74.8

* Median of data from 22 observers.

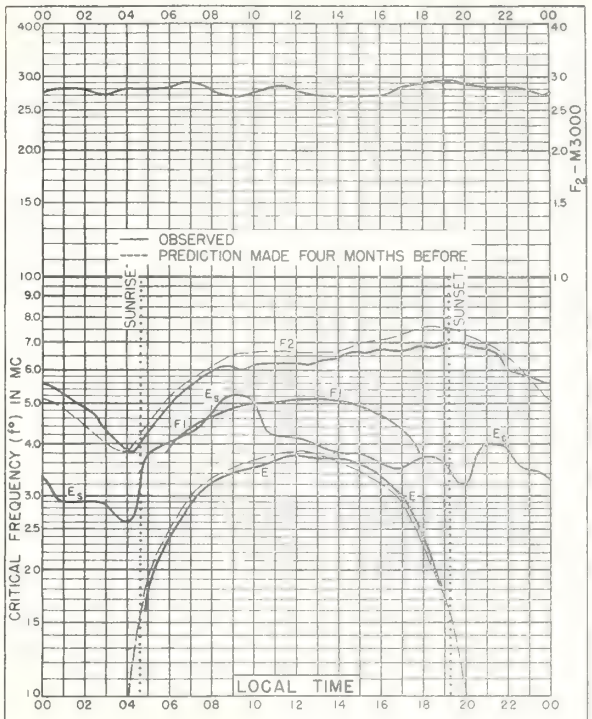


Fig. 1. WASHINGTON, D.C.
39.0°N, 77.5°W JUNE, 1946

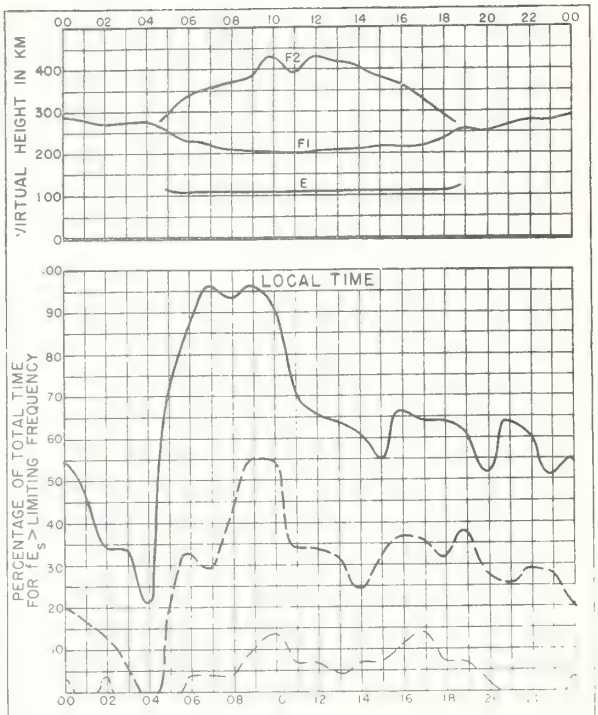


Fig. 2. WASHINGTON, D.C. JUNE, 1946

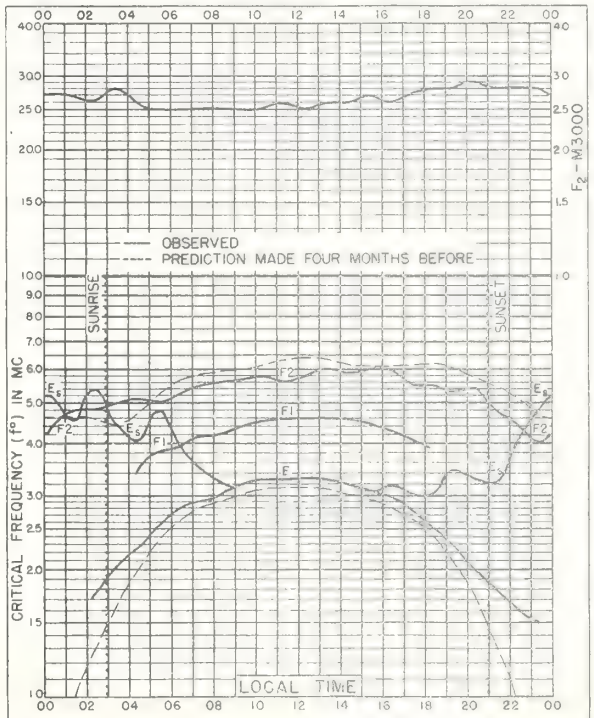


Fig. 3. FAIRBANKS, ALASKA
64.9°N, 147.8°W MAY, 1946

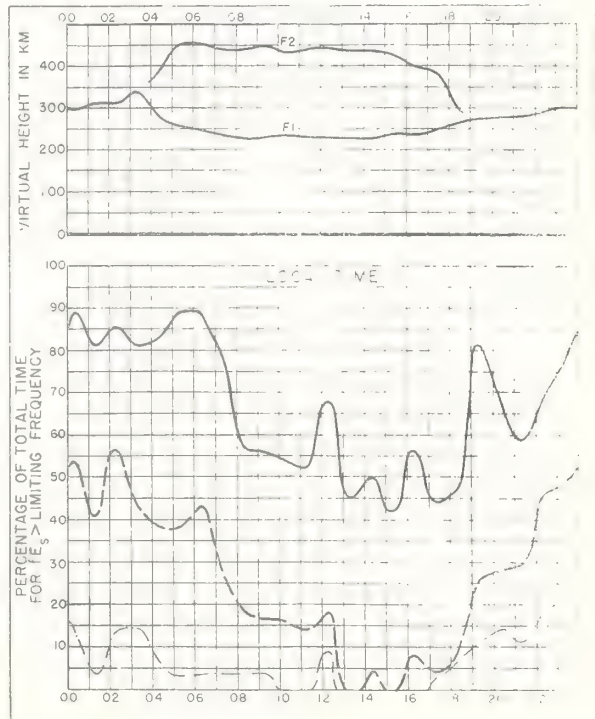


Fig. 4. FAIRBANKS, ALASKA MAY, 1946

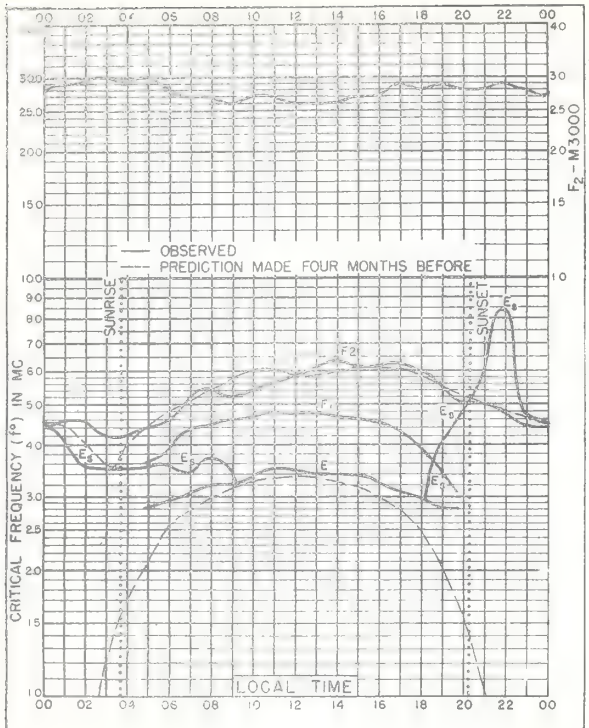


Fig.5. CHURCHILL, CANADA
58.8°N, 94.2°W MAY, 1946

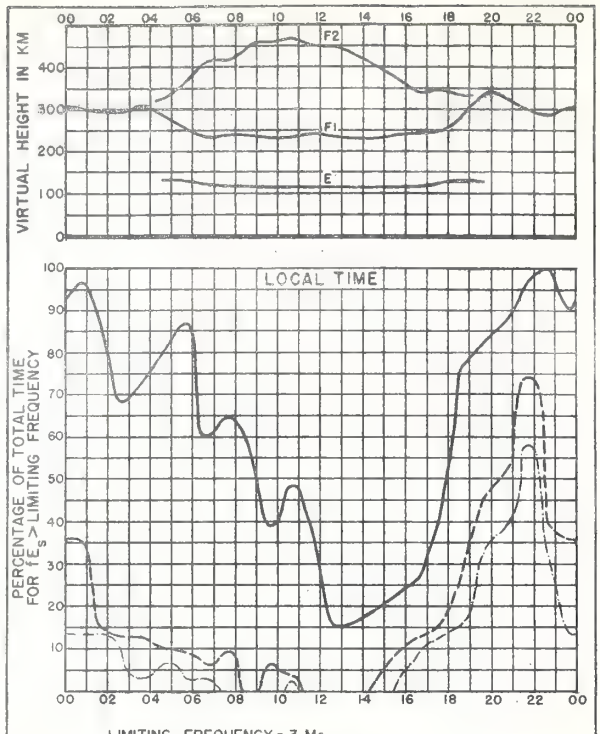


Fig.6. CHURCHILL, CANADA MAY, 1946

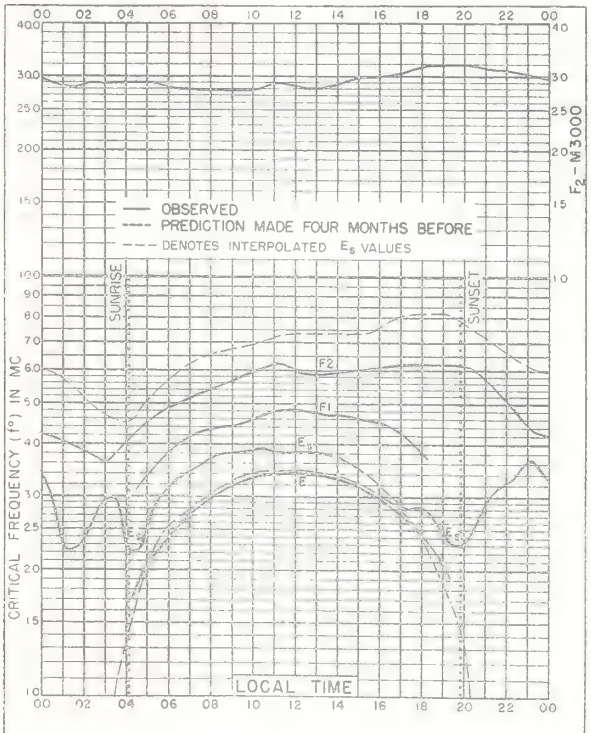


Fig. 7. PRINCE RUPERT, CANADA
54.3°N, 130.3°W MAY, 1946

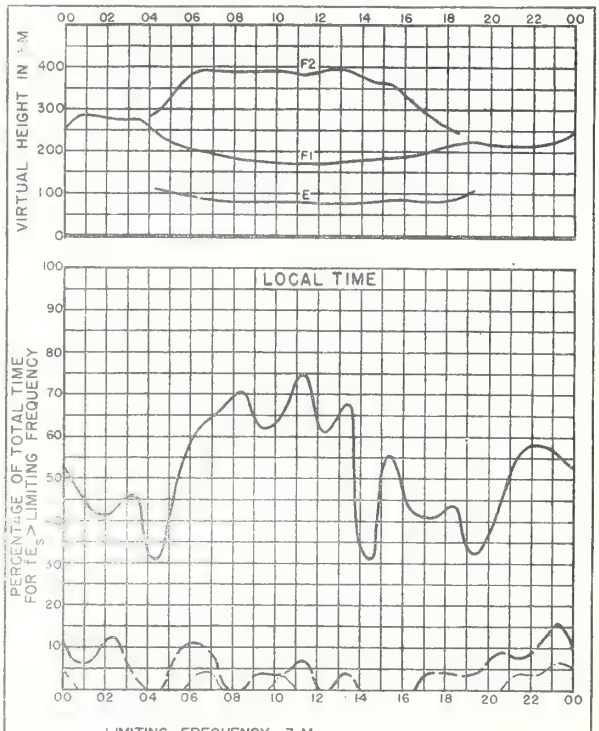


Fig. 8. PRINCE RUPERT, CANADA MAY, 1946

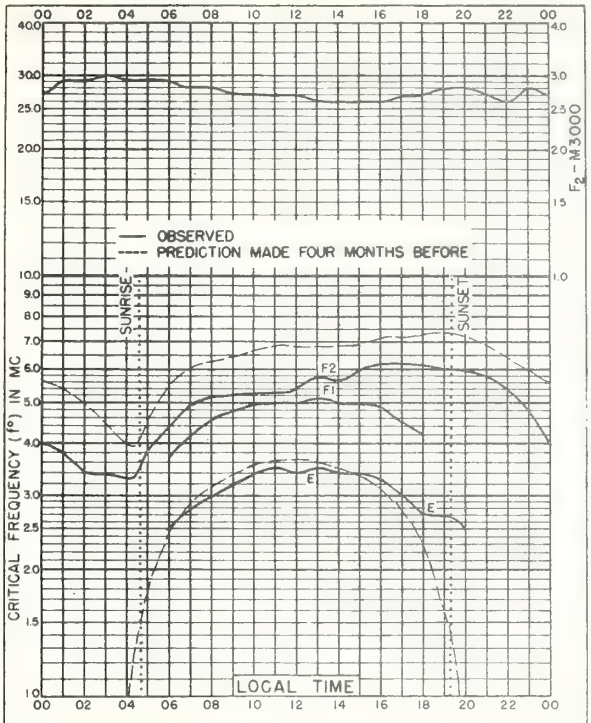


Fig. 9. OTTAWA, CANADA
45.5°N, 75.8°W MAY, 1946

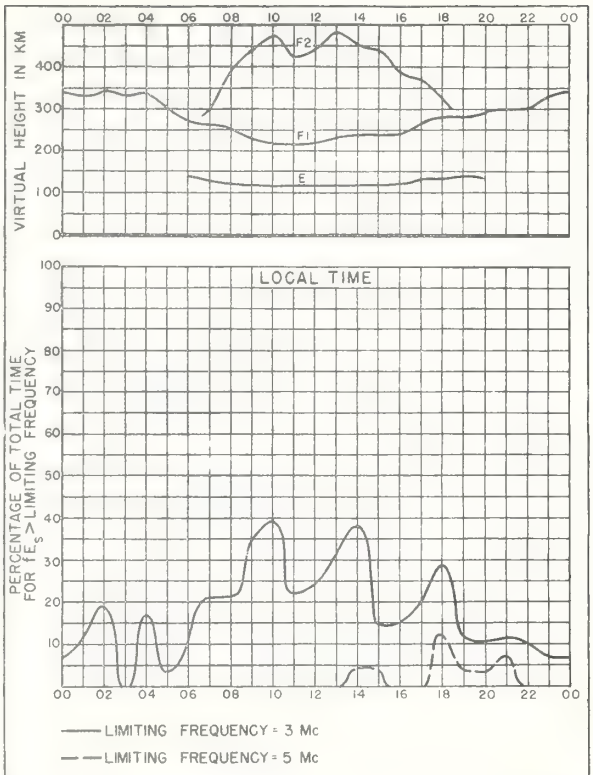


Fig.10. OTTAWA, CANADA MAY, 1946

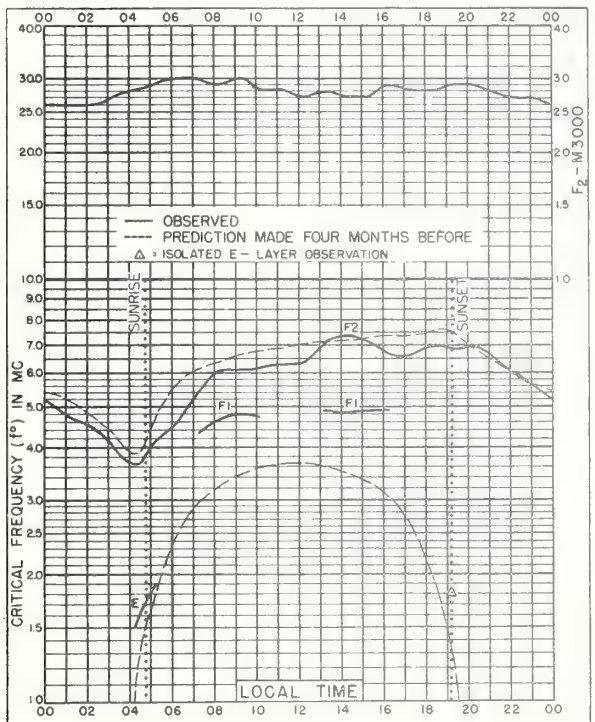


Fig. 11. BOSTON, MASSACHUSETTS
42.4°N, 71.2°W MAY, 1946

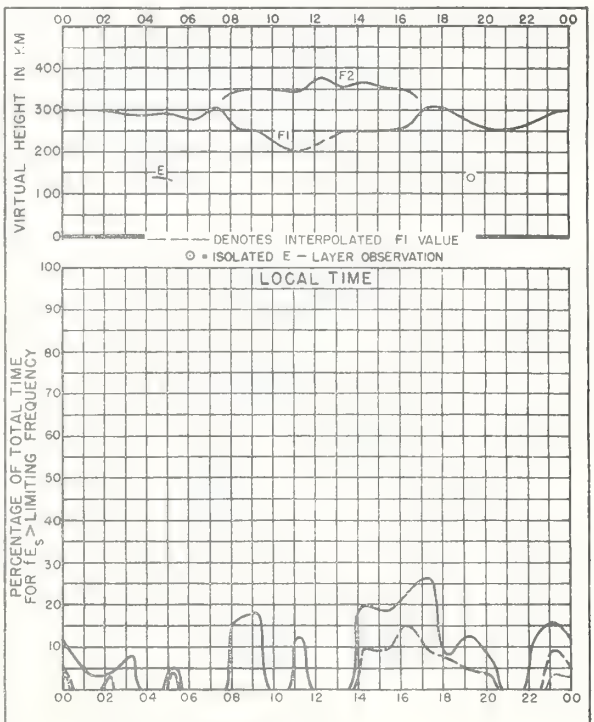


Fig.12. BOSTON, MASSACHUSETTS MAY, 1946

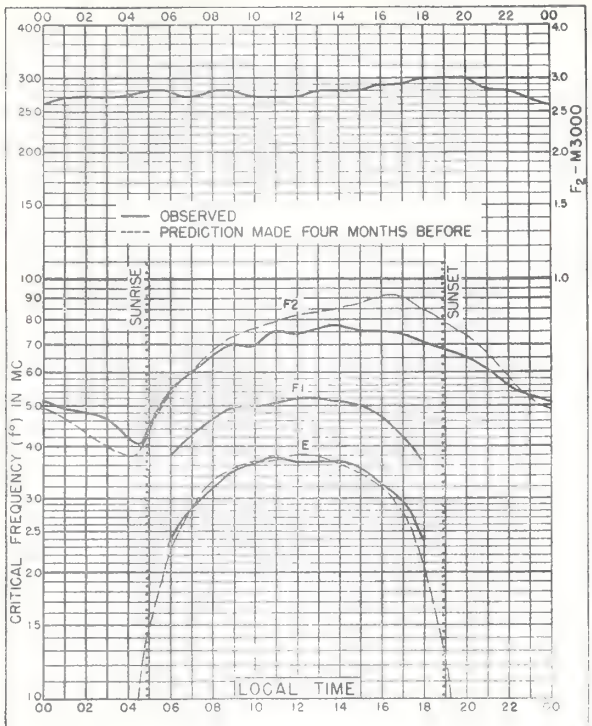


Fig.13. SAN FRANCISCO, CALIFORNIA
37.4°N, 122.2°W MAY, 1946

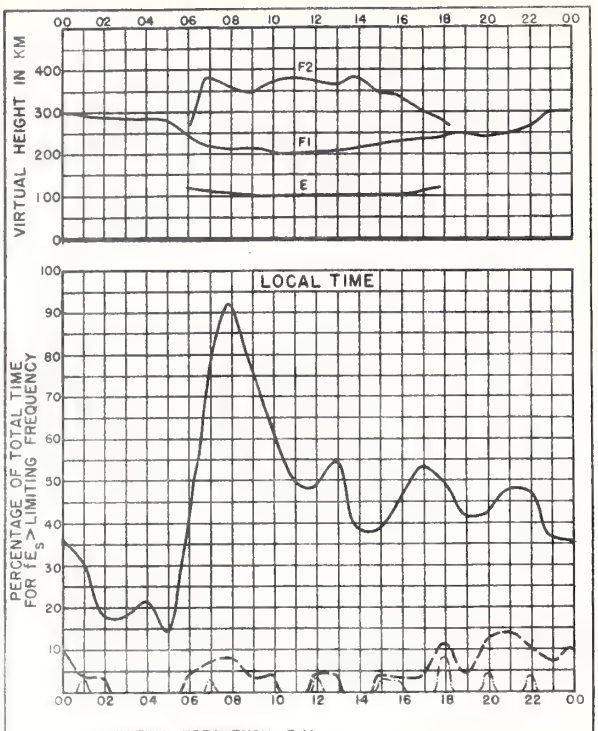


Fig.14. SAN FRANCISCO, CALIFORNIA MAY, 1946

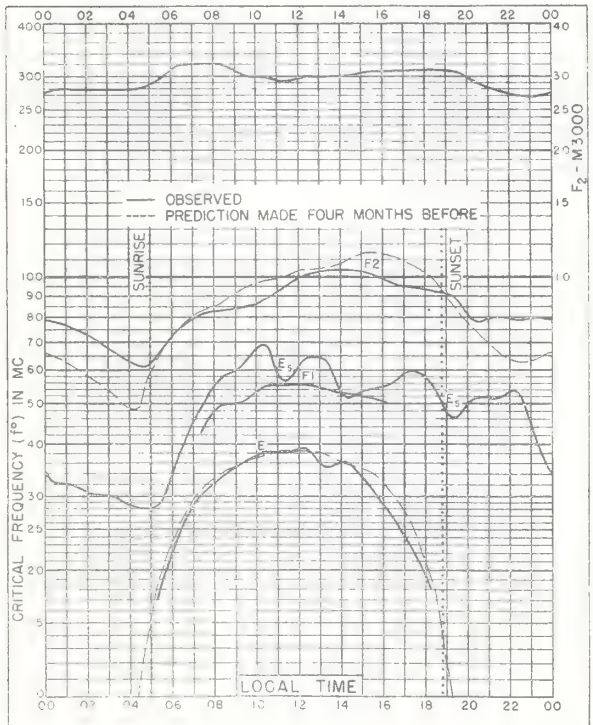


Fig.15 TOKYO, JAPAN
35.6°N, 139.6°E MAY, 1946

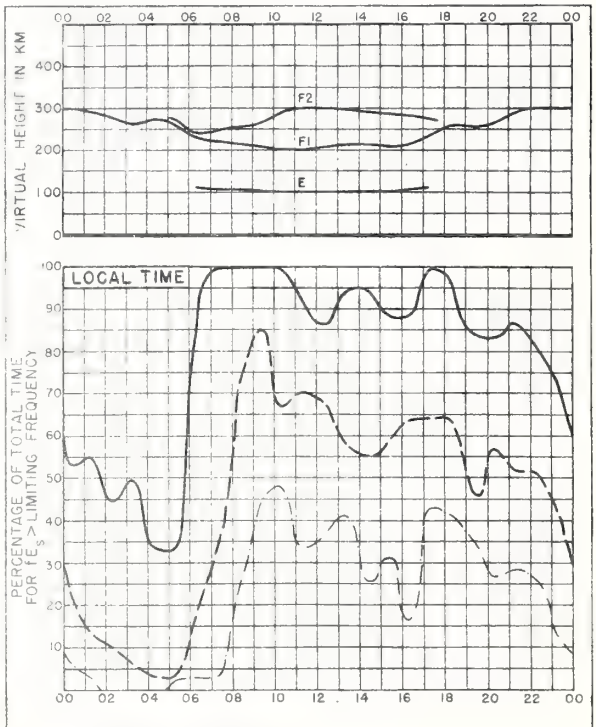


Fig.16. TOKYO, JAPAN MAY, 1946

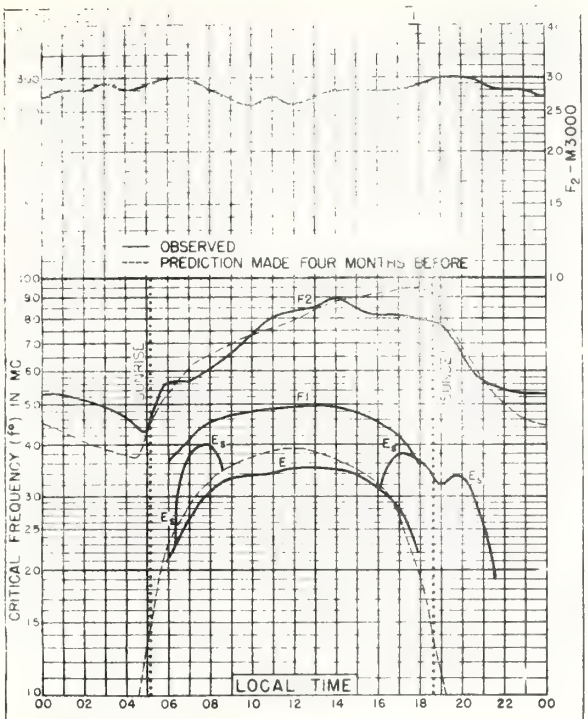


Fig. 17. BATON ROUGE, LOUISIANA
30.5°N, 91.2°W MAY, 1946

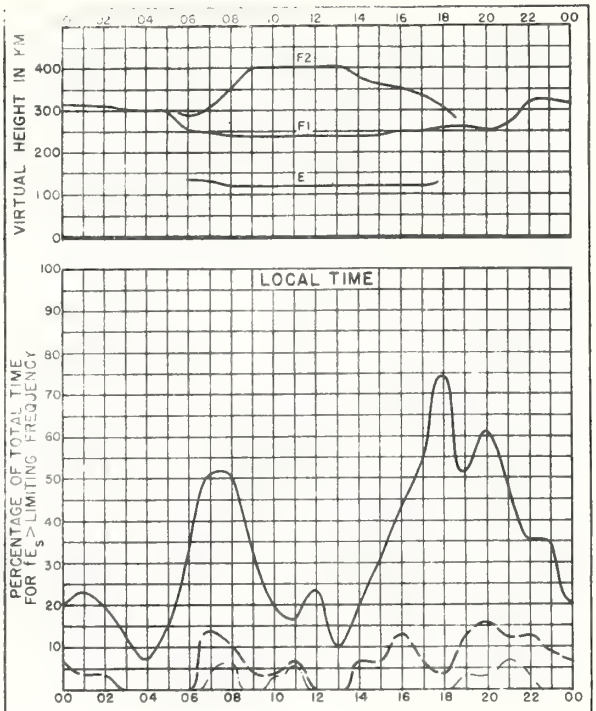


Fig. 18. BATON ROUGE, LOUISIANA MAY, 1946

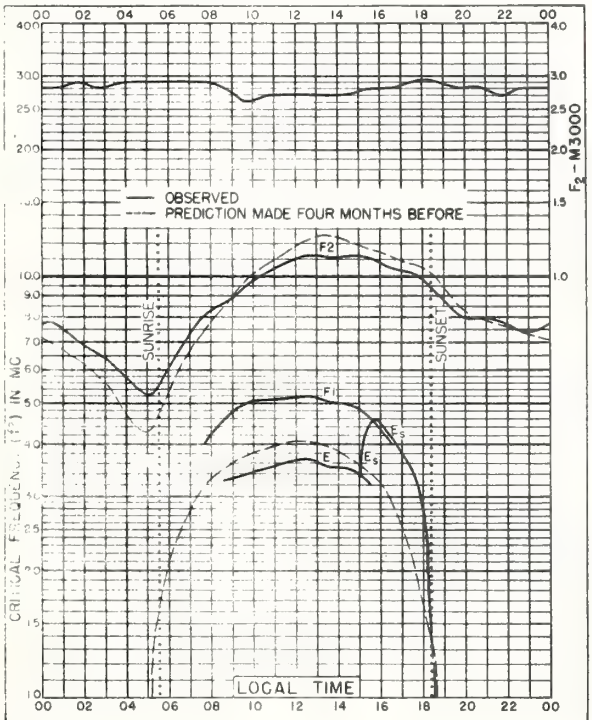


Fig. 19. SAN JUAN, PUERTO RICO
18.4°N, 66.1°W MAY, 1946

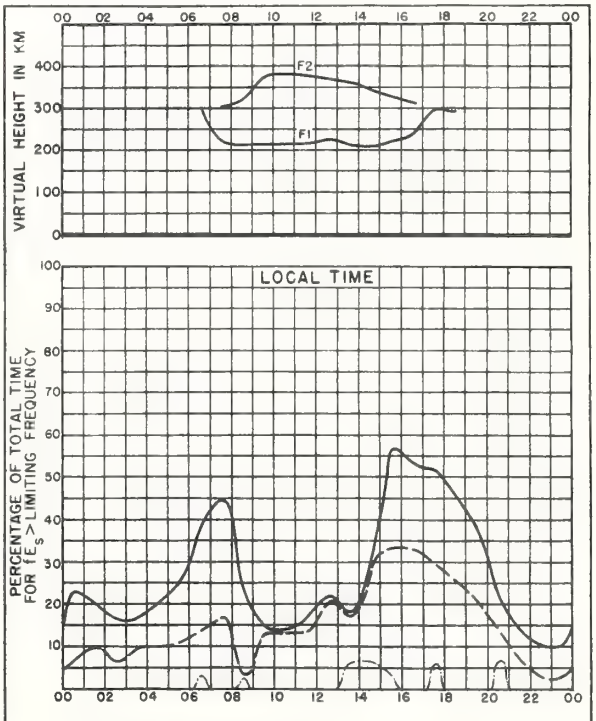


Fig. 20. SAN JUAN, PUERTO RICO MAY, 1946

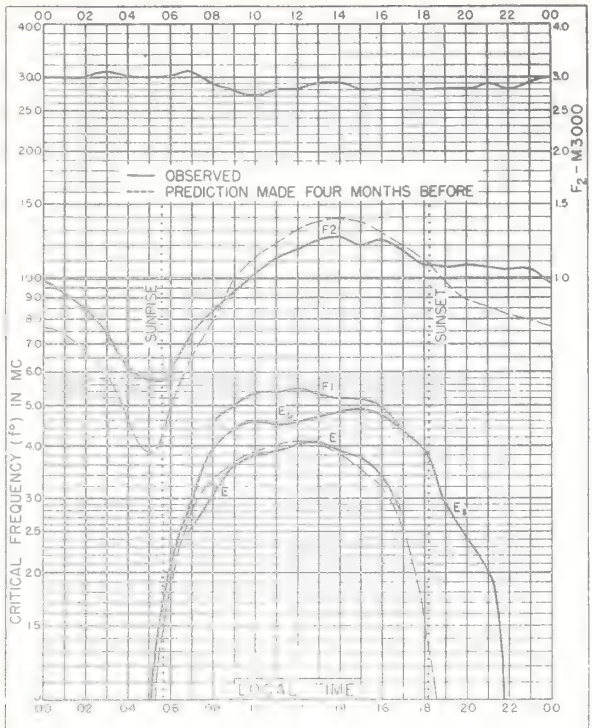


Fig 21 TRINIDAD, BRIT. WEST INDIES
10.6°N, 61.2°W MAY, 1946

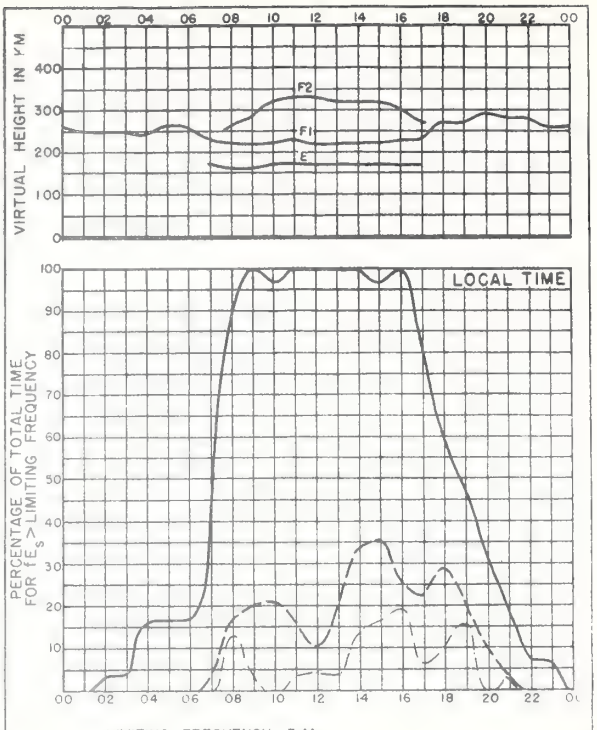


Fig. 22. TRINIDAD, BRIT. WEST INDIES MAY, 1946

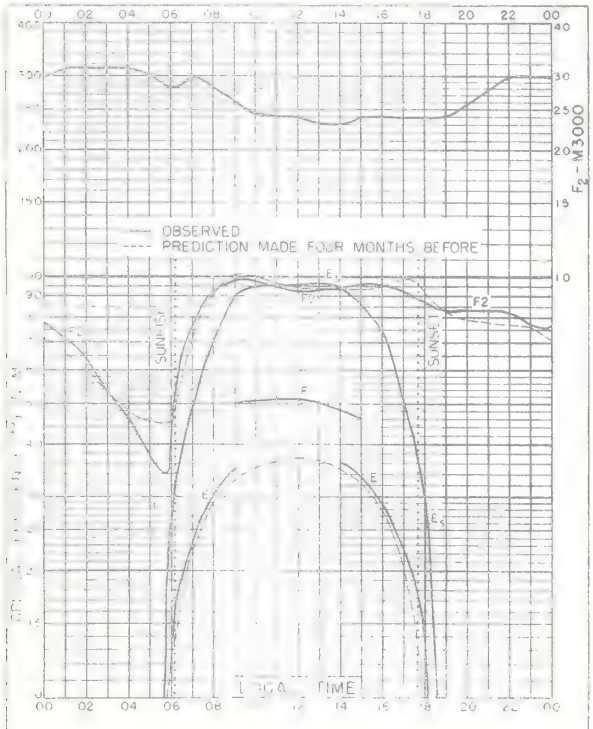


Fig 23 HUANCAYO, PERU
12.0°S, 75.3°W MAY, 1946

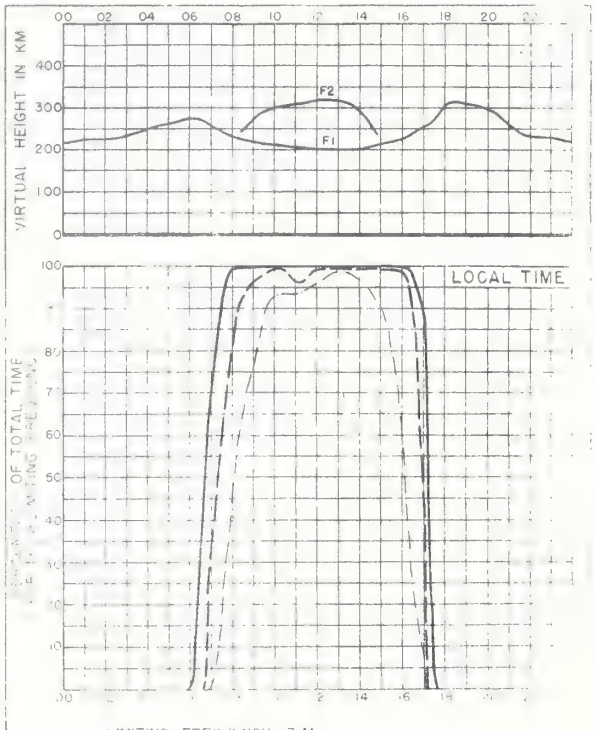


Fig 24 HUANCAYO, PERU MAY, 1946

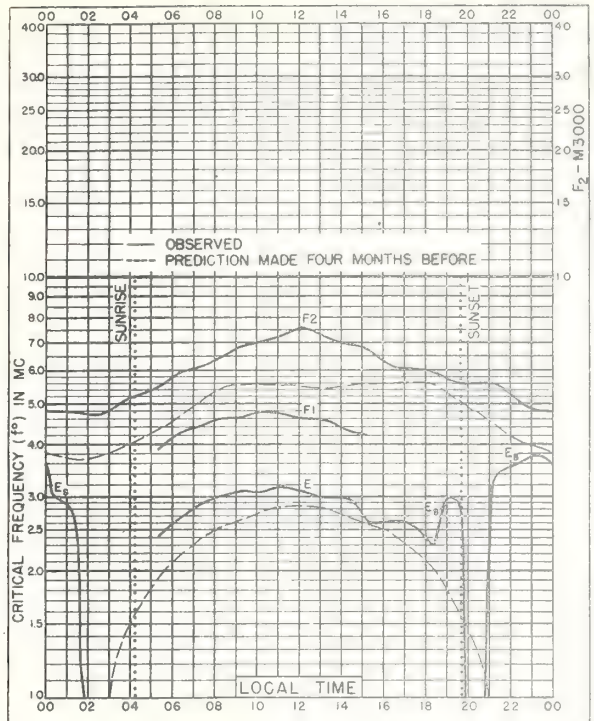


Fig. 25. TROMSO, NORWAY
69.7°N, 18.9°E APRIL, 1946

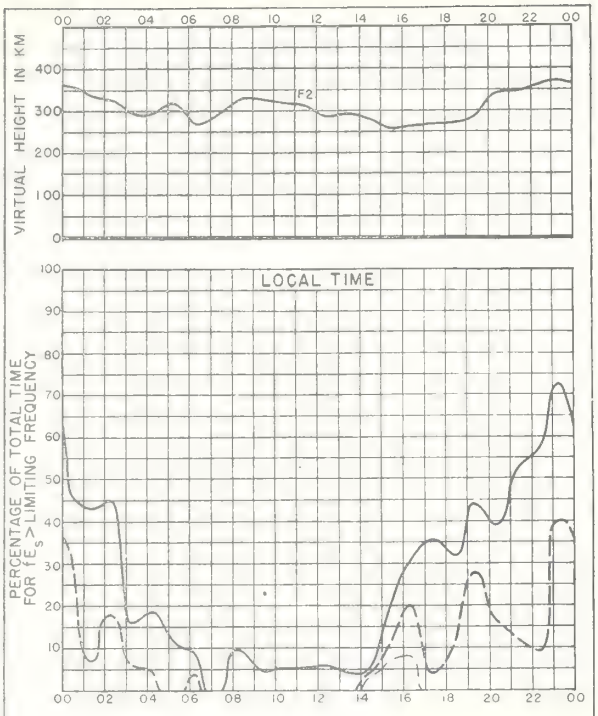


Fig. 26. TROMSO, NORWAY APRIL, 1946

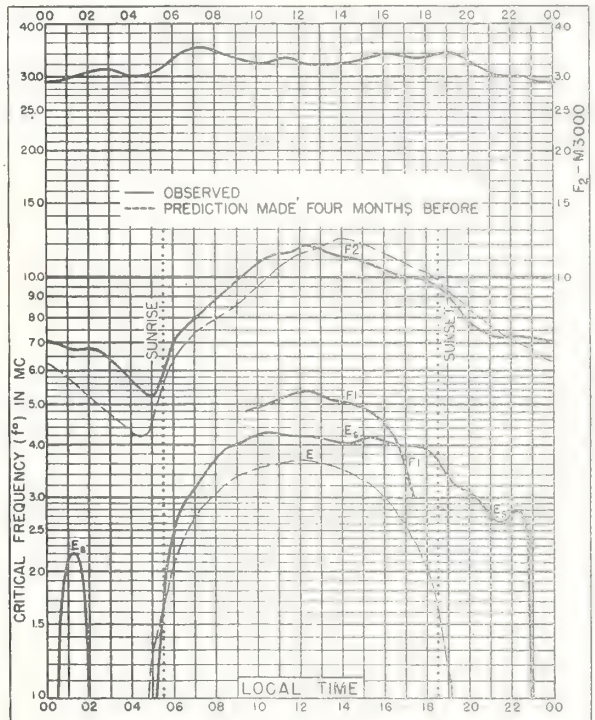


Fig. 27. TOKYO, JAPAN
35.6°N, 139.6°E APRIL, 1946

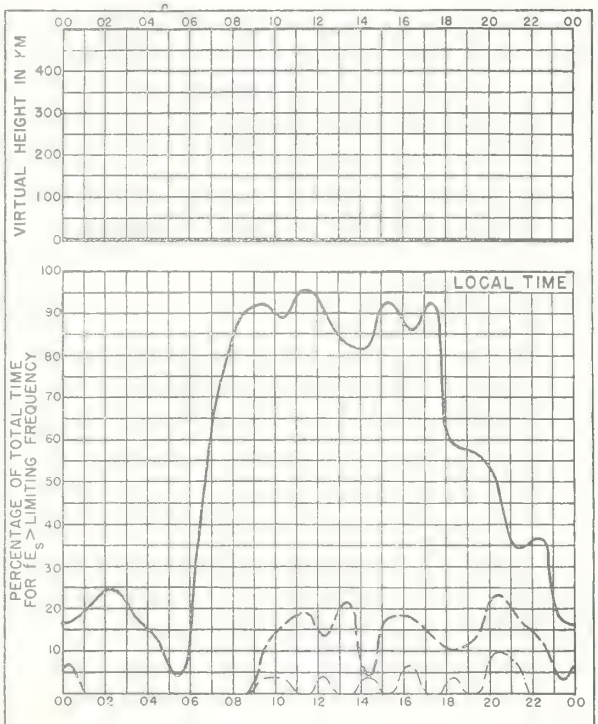


Fig. 28. TOKYO, JAPAN APRIL, 1946

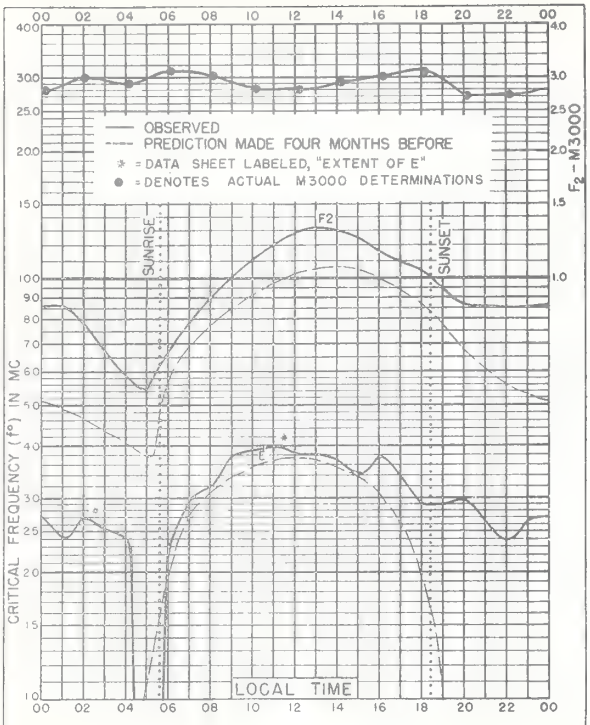


Fig. 29. CAIRO, EGYPT
30.6°N, 31.9°E APRIL, 1946

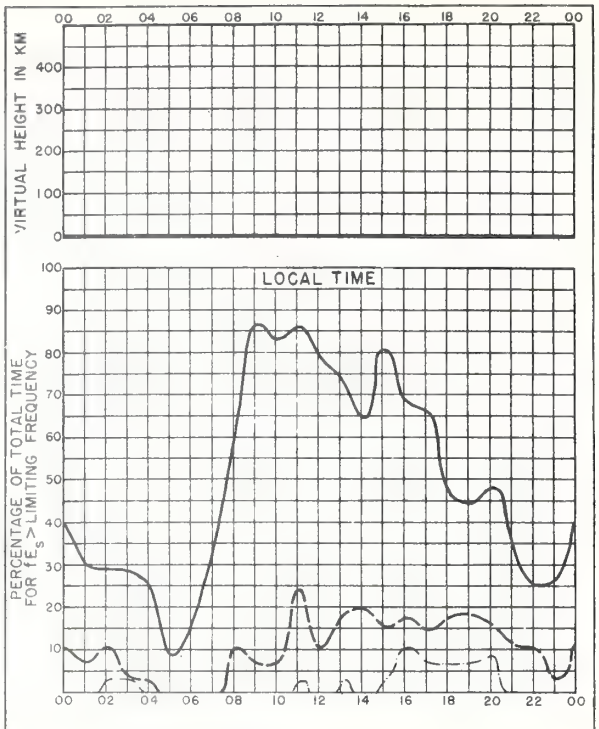


Fig. 30. CAIRO, EGYPT APRIL, 1946

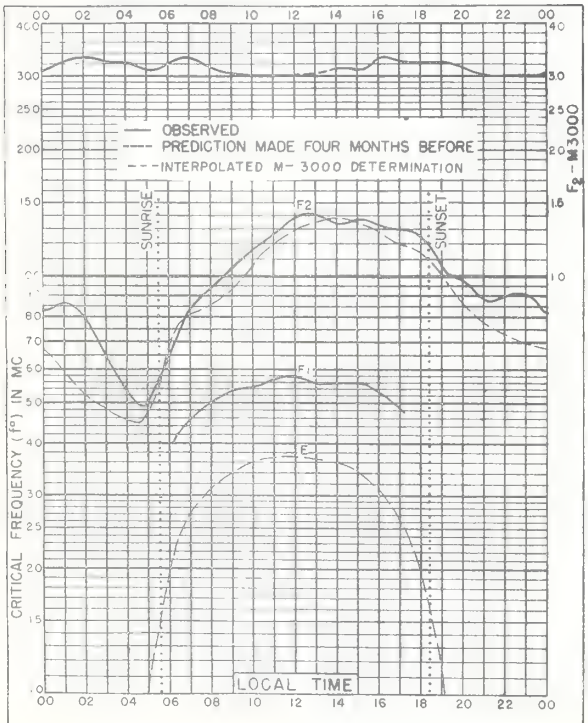


Fig. 31. CHUNGKING, CHINA
29.4°N, 106.8°E APRIL, 1946

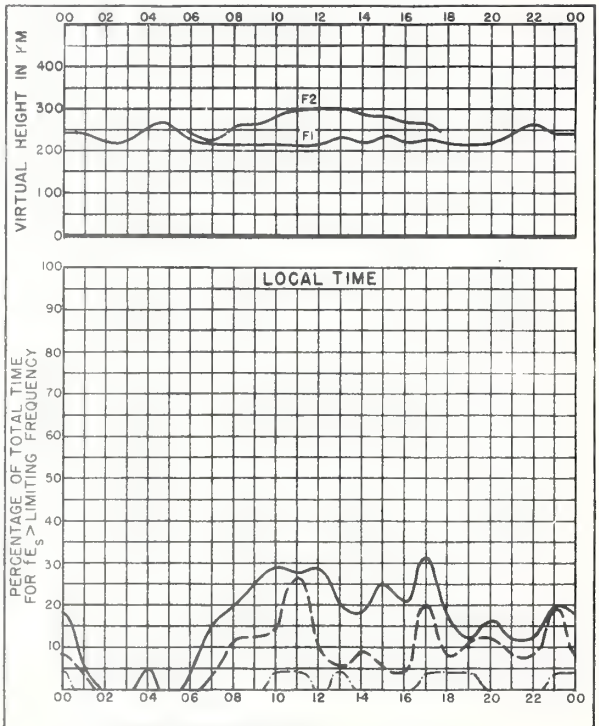


Fig. 32. CHUNGKING, CHINA APRIL, 1946

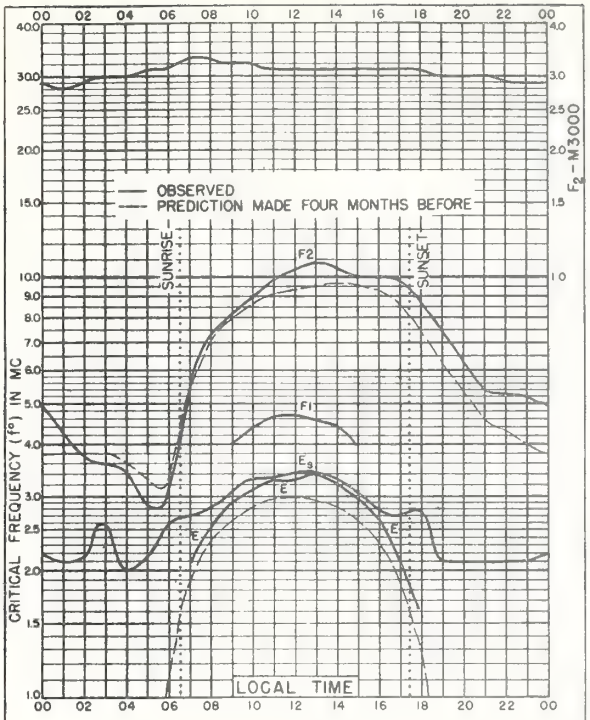


Fig. 33. HOBART, TASMANIA
42.8°S, 147.4°E
APRIL, 1946

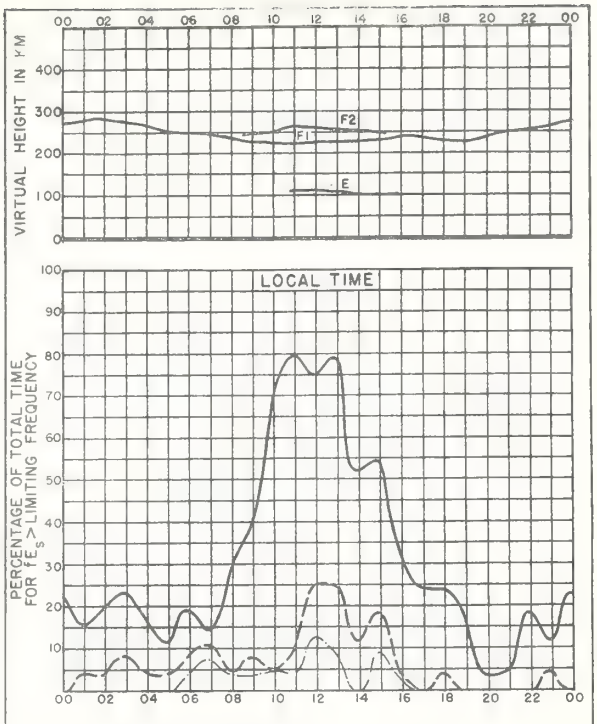


Fig. 34. HOBART, TASMANIA
APRIL, 1946

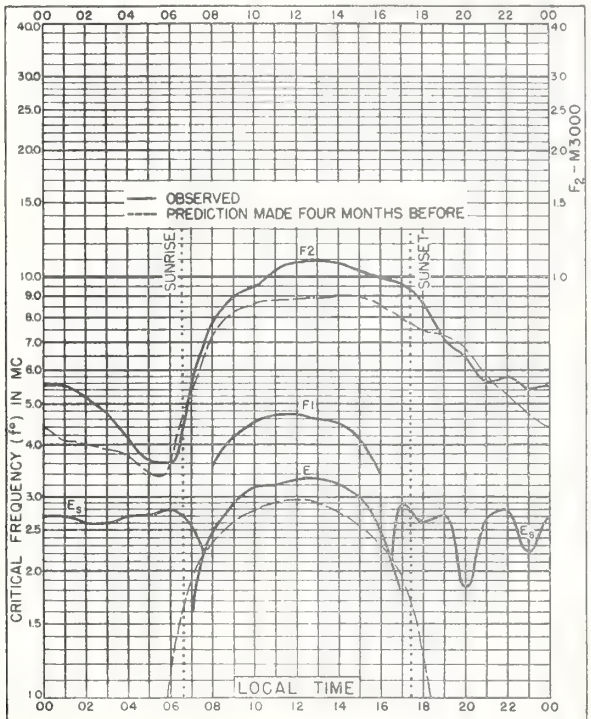


Fig. 35. CHRISTCHURCH, N.Z
43.5°S, 172.6°E
APRIL, 1946

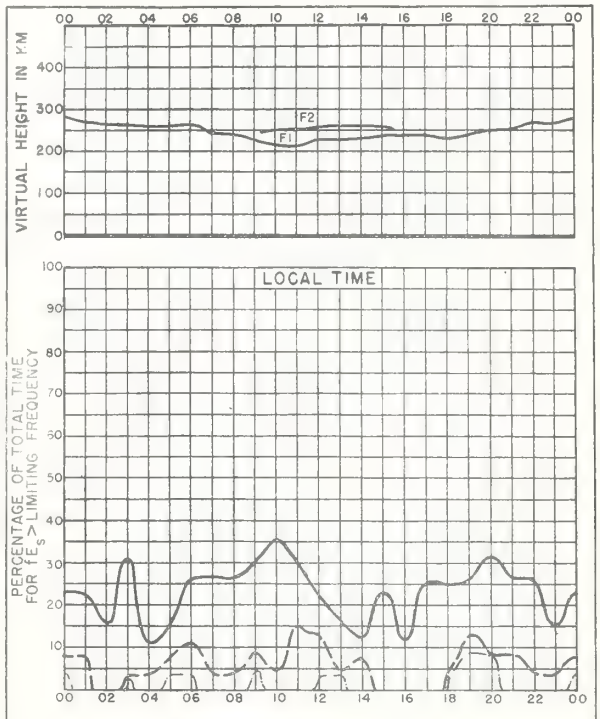


Fig. 36. CHRISTCHURCH, N.Z
APRIL, 1946

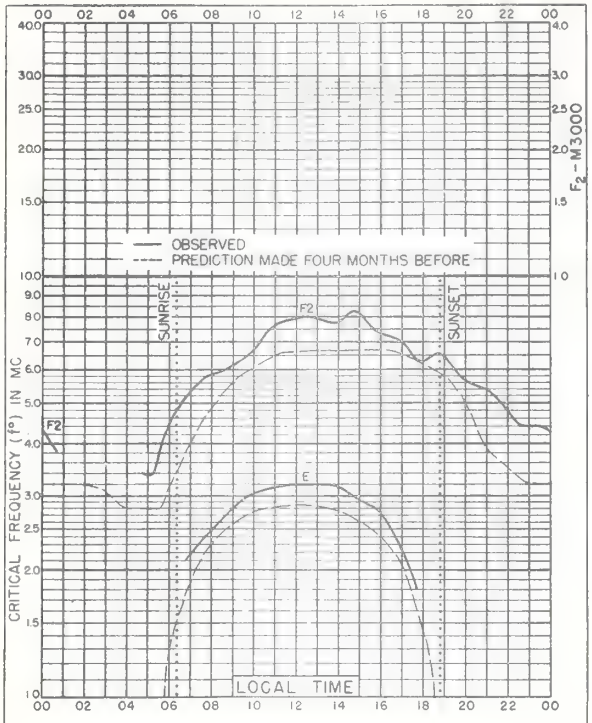


Fig. 37. OSLO, NORWAY
59.9°N, 11.0°E MARCH, 1946

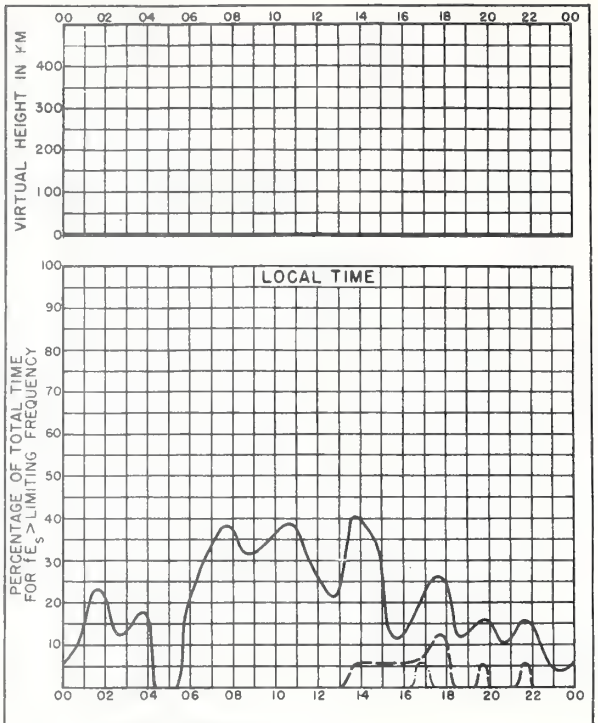


Fig. 38. OSLO, NORWAY MARCH, 1946

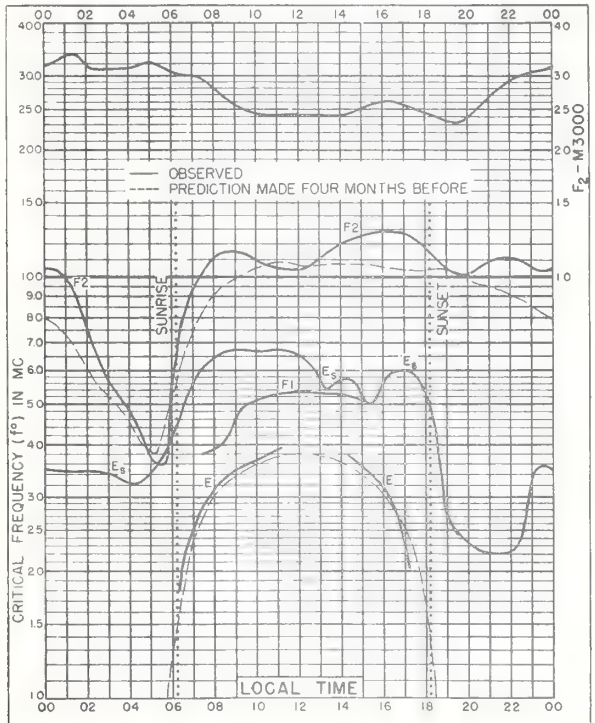


Fig. 39. LEYTE, PHILIPPINE IS
11.0°N, 125.0°E MARCH, 1946

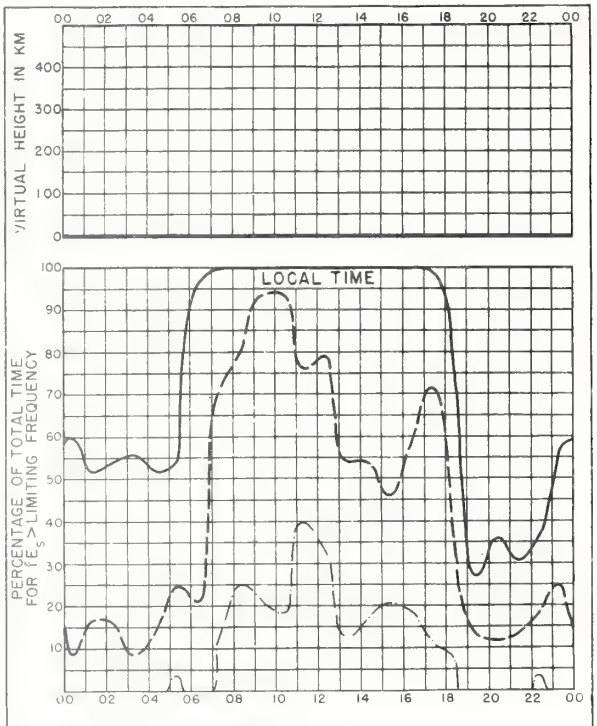


Fig. 40. LEYTE, PHILIPPINE IS. MARCH, 1946

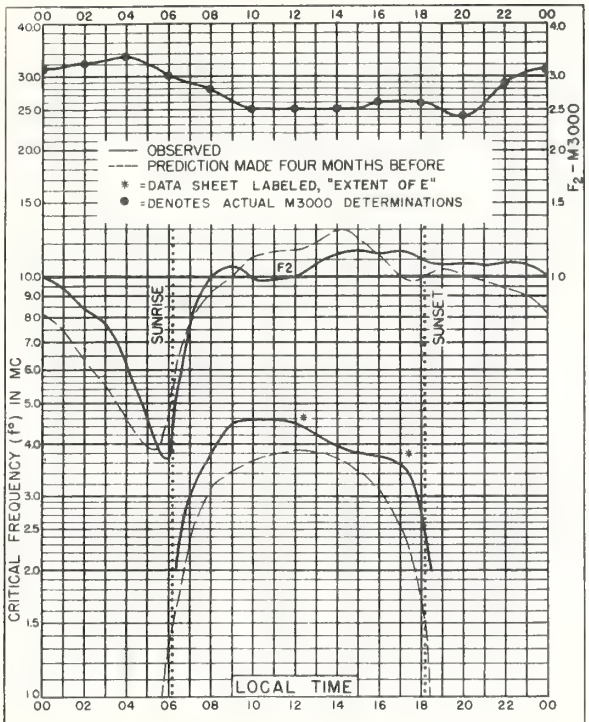


Fig. 41. COLOMBO, CEYLON
6.6°N, 80.0°E MARCH, 1946

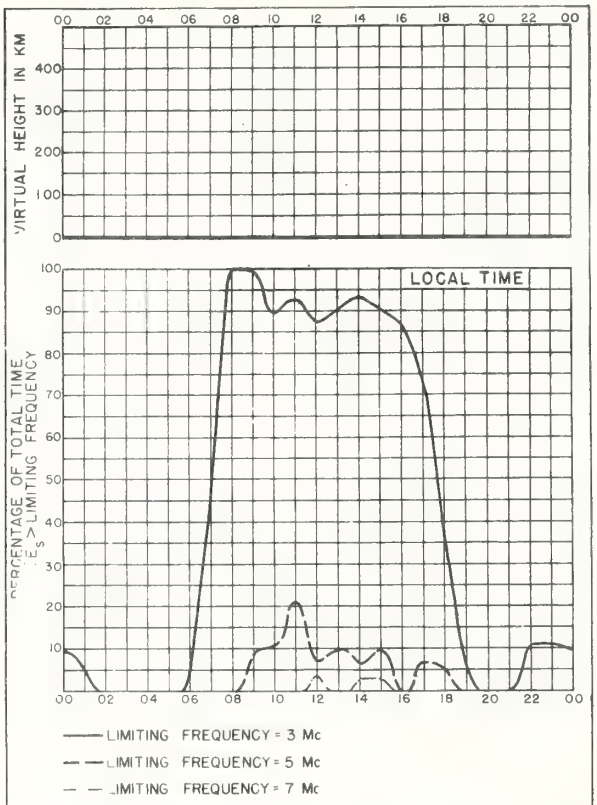


Fig. 42. COLOMBO, CEYLON MARCH, 1946

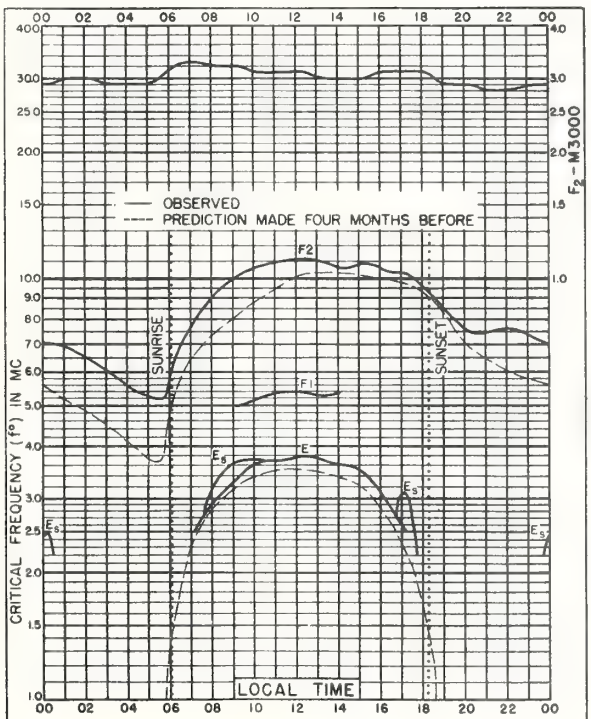


Fig. 43. BRISBANE, AUSTRALIA
27.5°S, 153.0°E MARCH, 1946

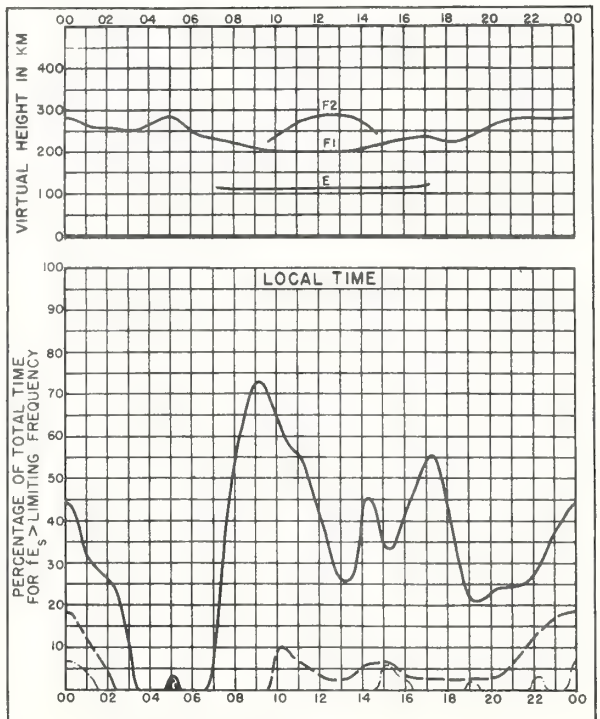


Fig. 44. BRISBANE, AUSTRALIA MARCH, 1946

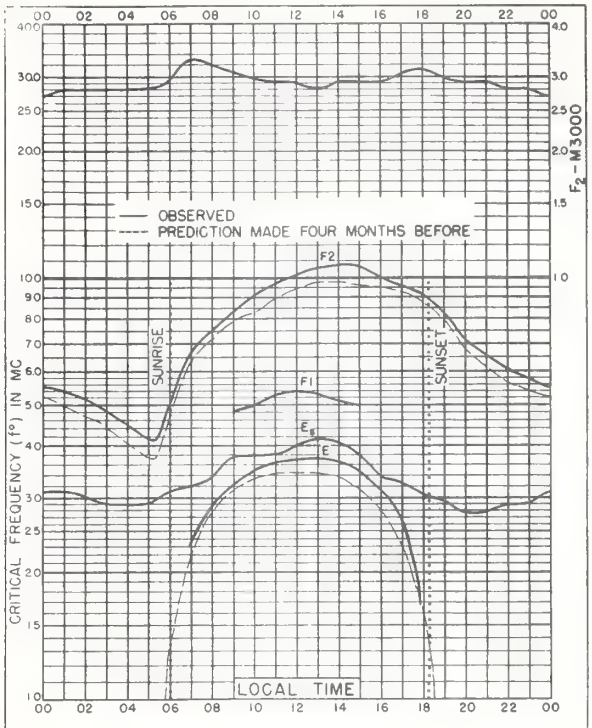


Fig. 45. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E MARCH, 1946

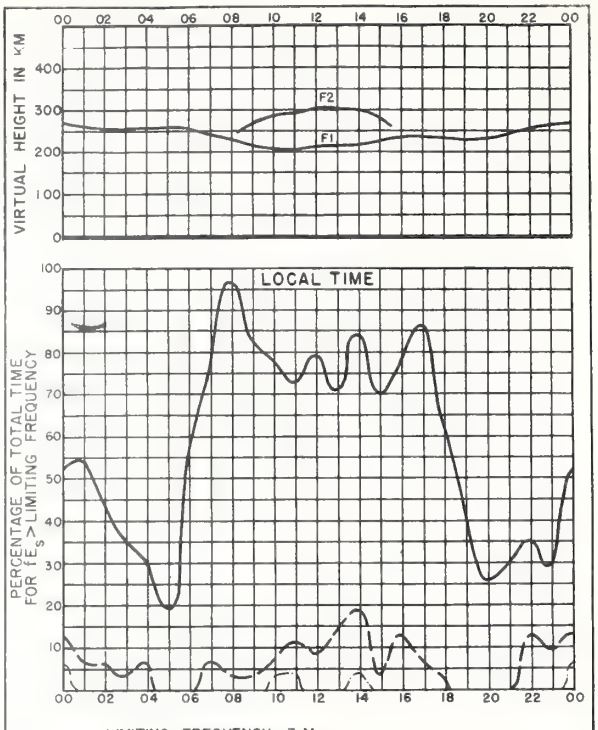


Fig. 46. WATHEROO, W. AUSTRALIA MARCH, 1946

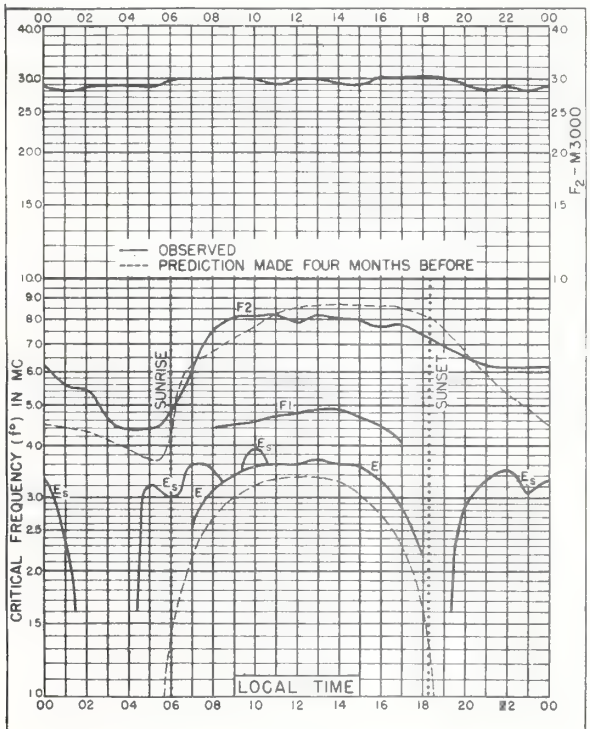


Fig. 47. CANBERRA, AUSTRALIA
35.3°S, 149.0°E MARCH, 1946

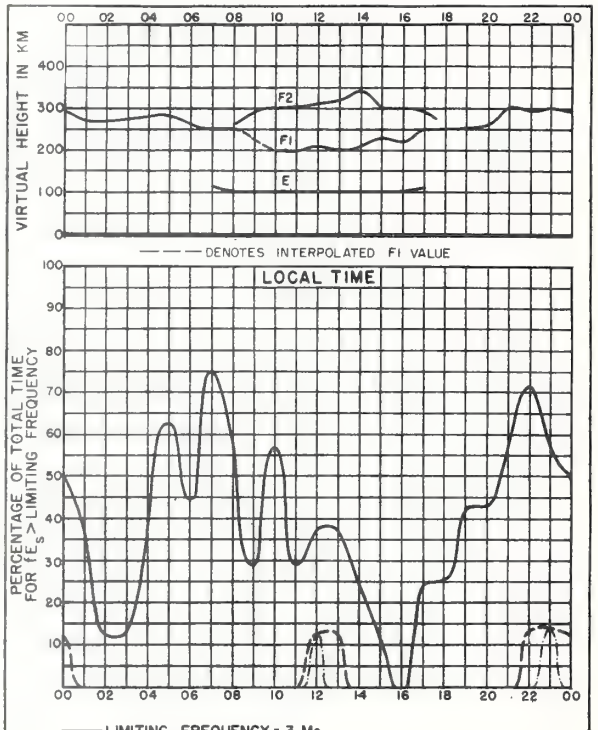


Fig. 48. CANBERRA, AUSTRALIA MARCH, 1946

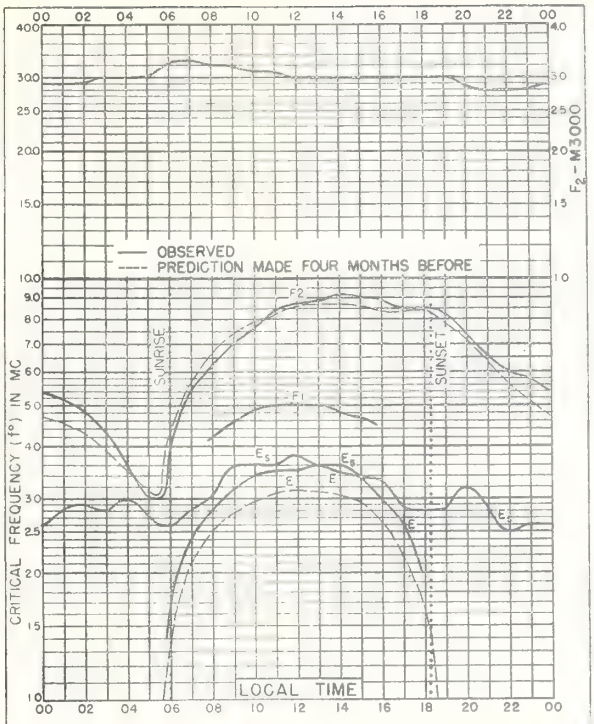


Fig. 49. HOBART, TASMANIA
42.8°S, 147.4°E MARCH, 1946

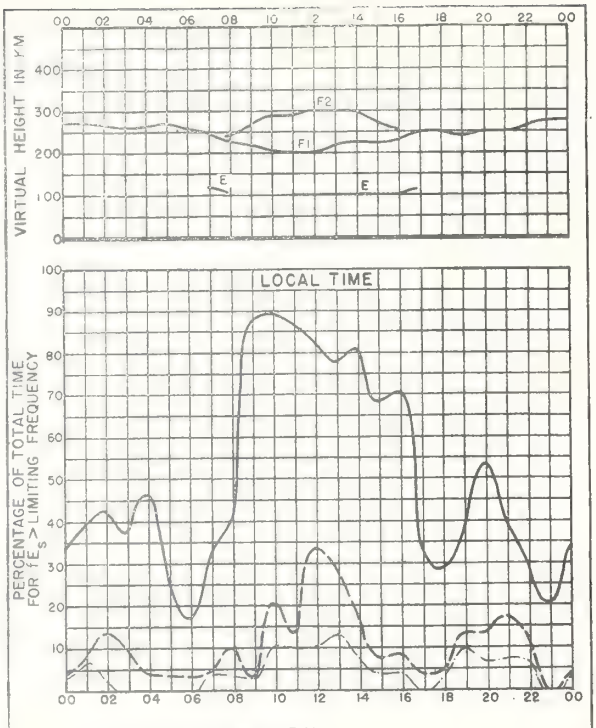


Fig. 50. HOBART, TASMANIA MARCH, 1946

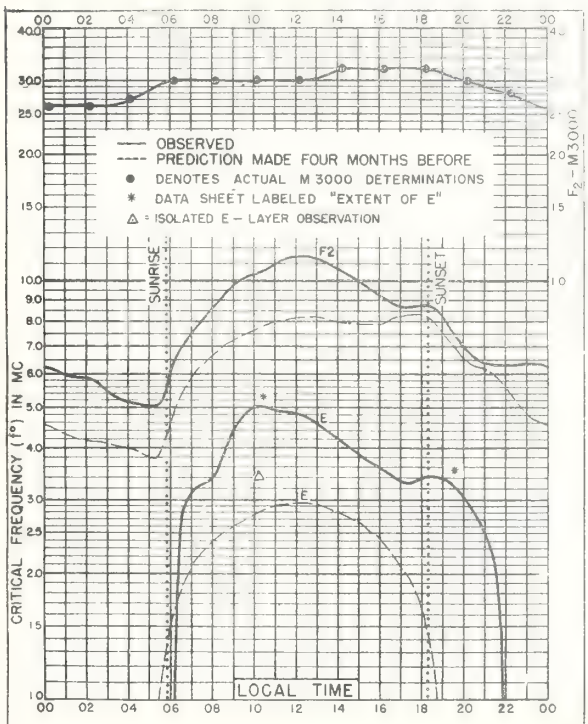


Fig. 51. FALKLAND IS.
51.7°S, 57.7°W MARCH, 1946

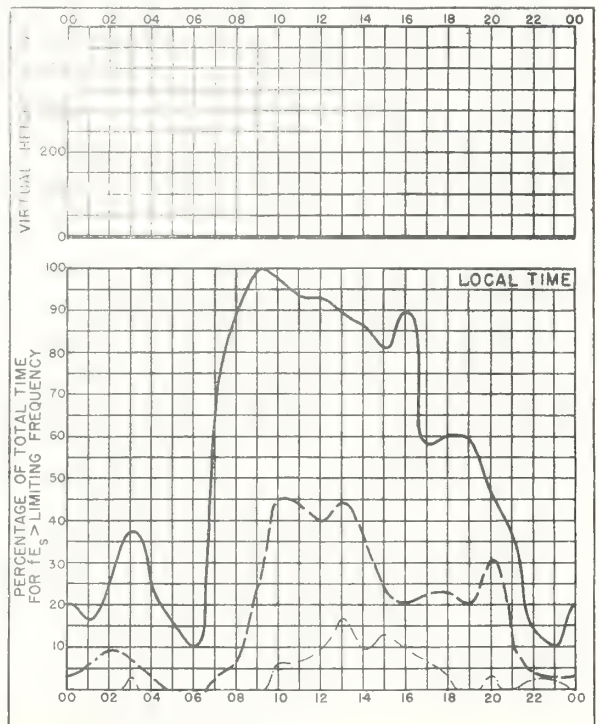


Fig. 52. FALKLAND IS. MARCH, 1946

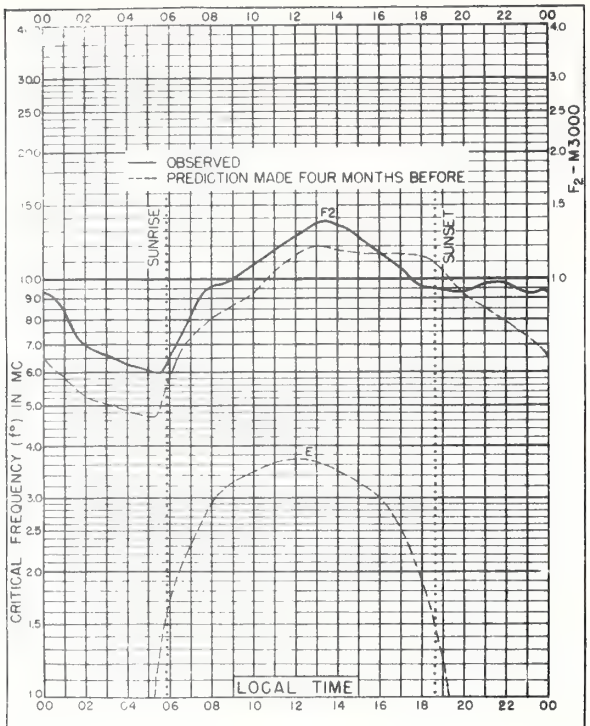


Fig. 53. RAROTONGA I.
21.3°S, 159.8°W FEBRUARY, 1946

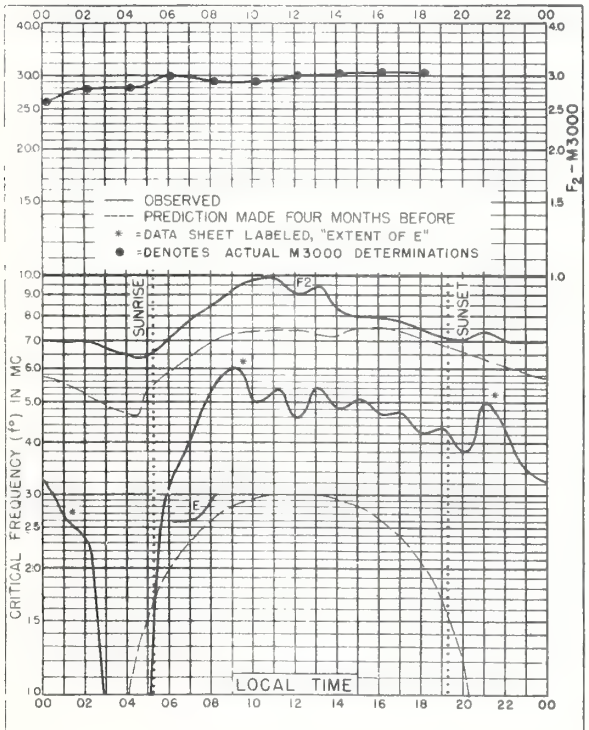


Fig. 54 FALKLAND IS.
51.7°S, 57.7°W FEBRUARY, 1946

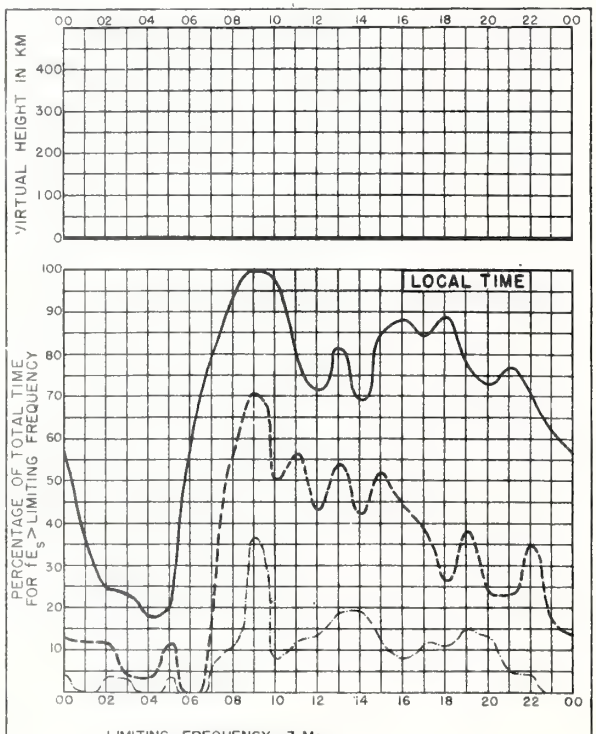


Fig. 55. FALKLAND IS. FEBRUARY, 1946

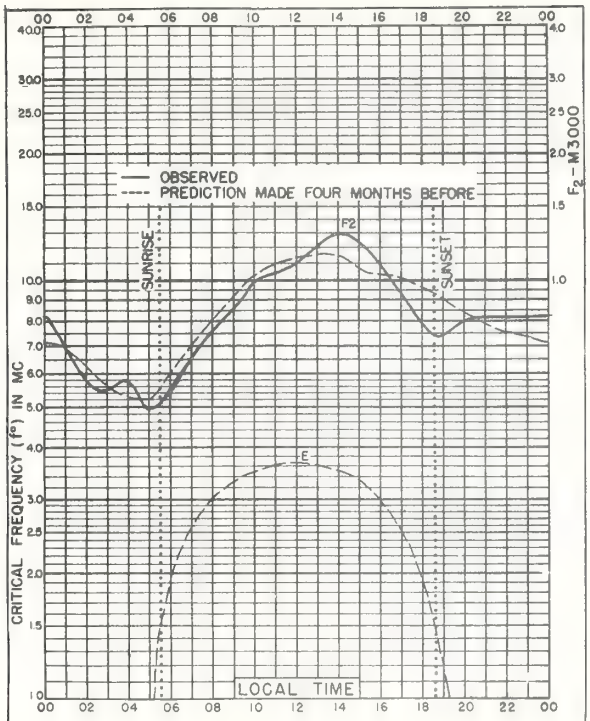


Fig. 56. RAROTONGA I.
21.3°S, 159.8°W JANUARY, 1946

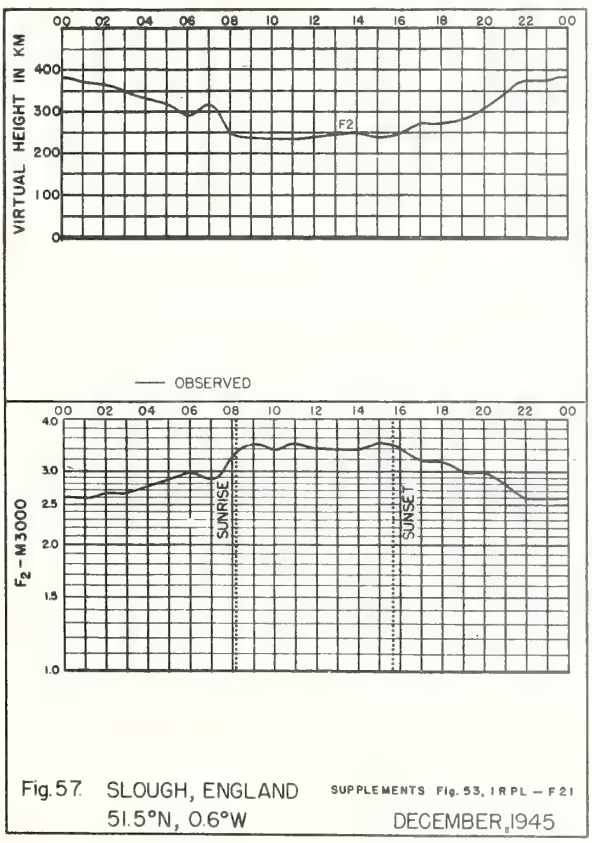


Fig. 57. SLOUGH, ENGLAND SUPPLEMENTS Fig. 53, I.R.P.L. – F.21
51.5°N, 0.6°W DECEMBER, 1945

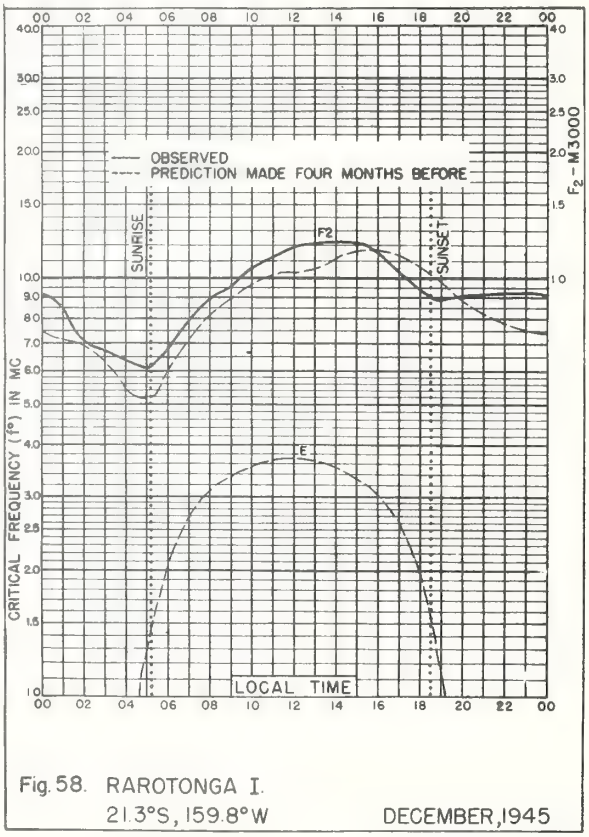


Fig. 58. RAROTONGA I.
21.3°S, 159.8°W DECEMBER, 1945

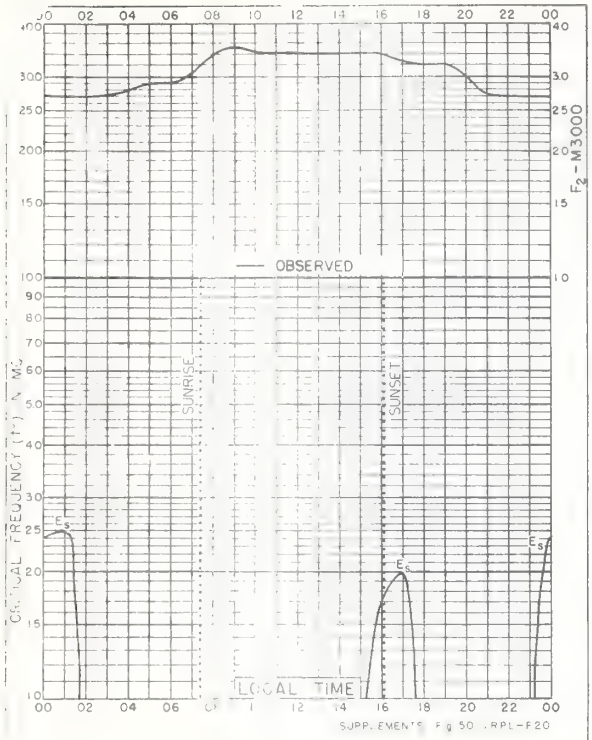


Fig. 59 SLOUGH, ENGLAND
51.5°N, 0.6°W NOVEMBER, 1945

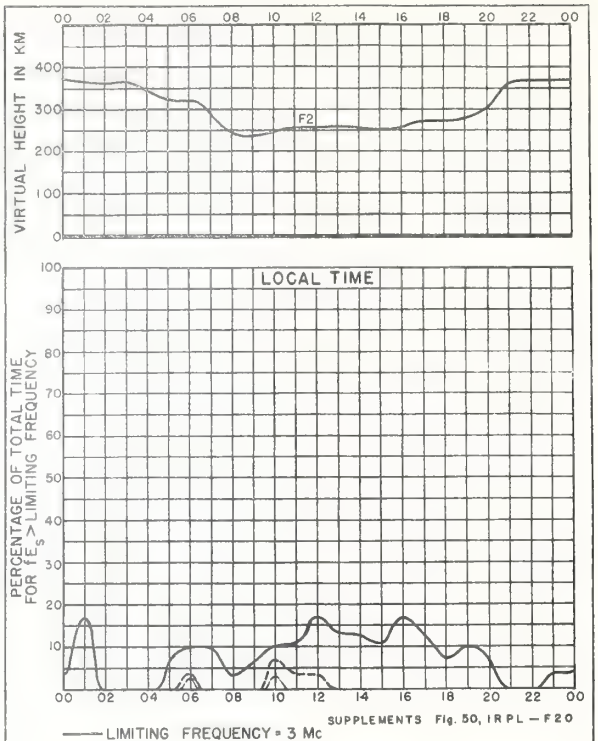


Fig. 60. SLOUGH, ENGLAND NOVEMBER, 1945

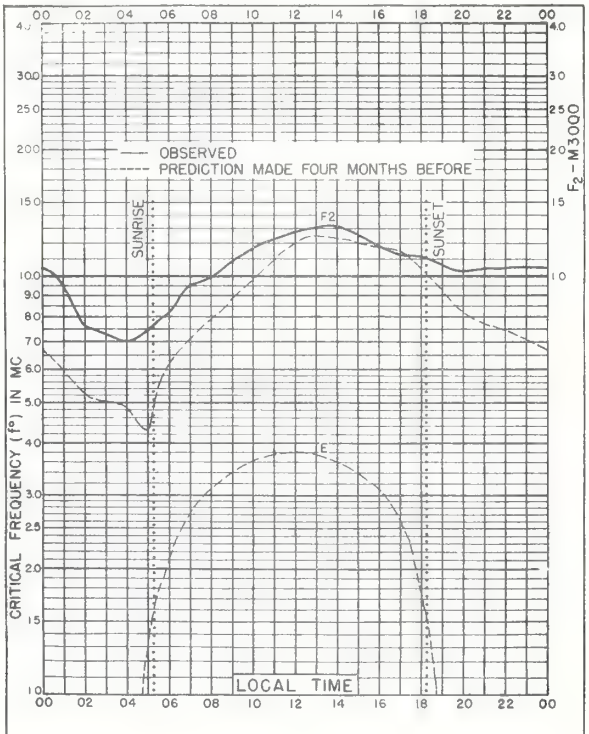


Fig. 61. RAROTONGA I.
21.3°S, 159.8°W NOVEMBER, 1945

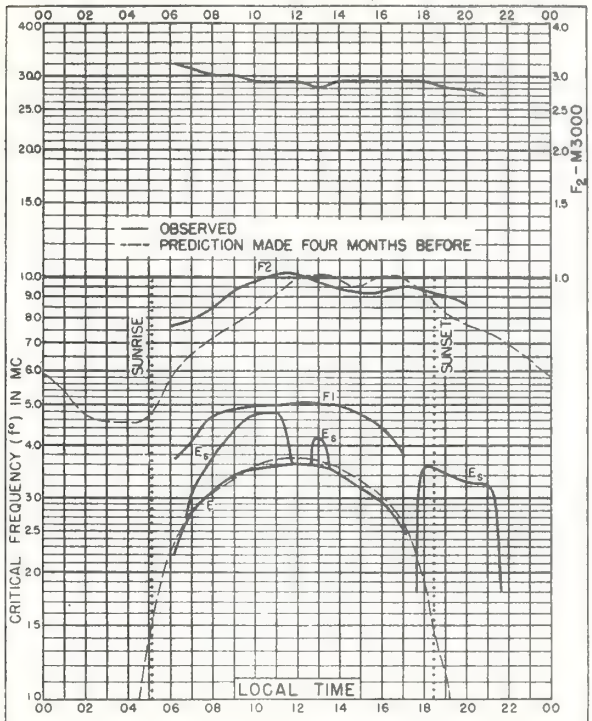


Fig. 62. KERMADEC IS.
29.2°S, 177.9°W NOVEMBER, 1945

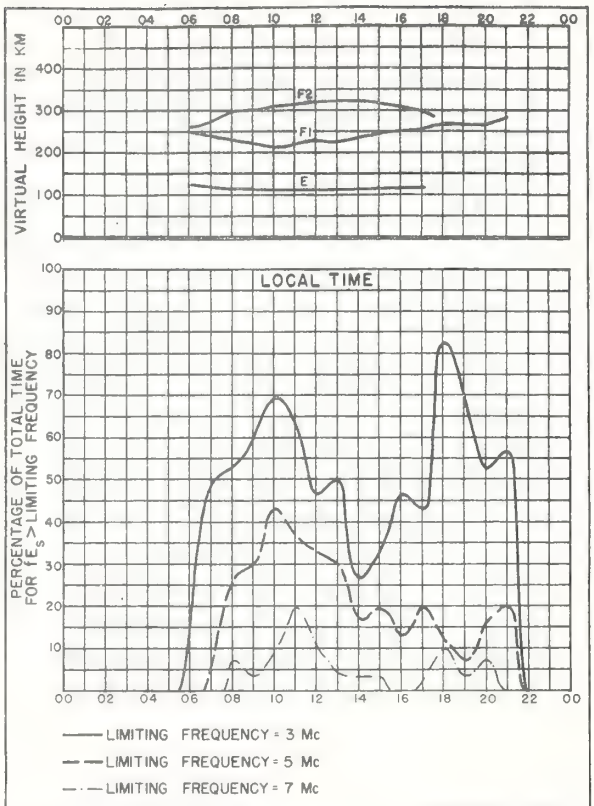


Fig. 63. KERMADEC IS NOVEMBER, 1945

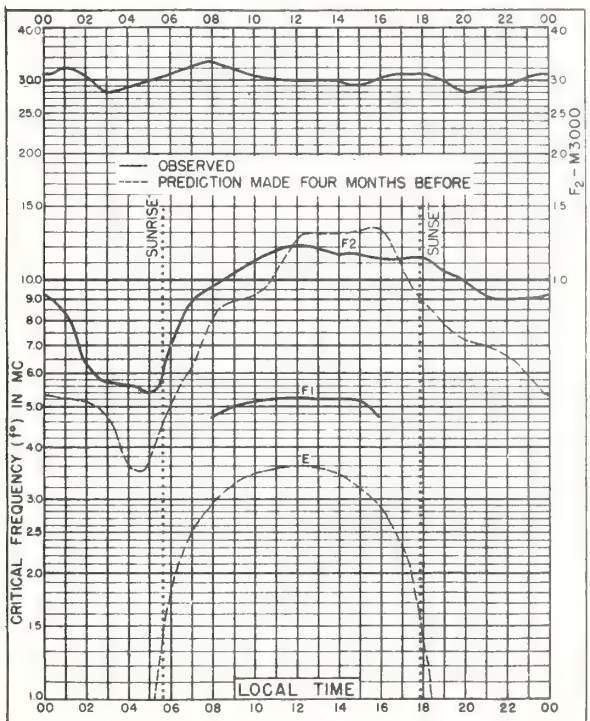


Fig. 64. RAROTONGA I.
21.3°S, 159.8W OCTOBER, 1945

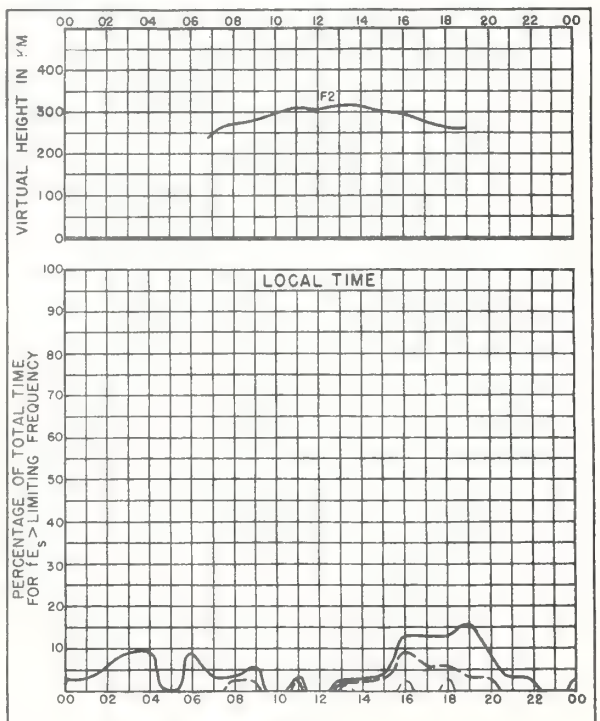


Fig. 65. RAROTONGA I OCTOBER, 1945

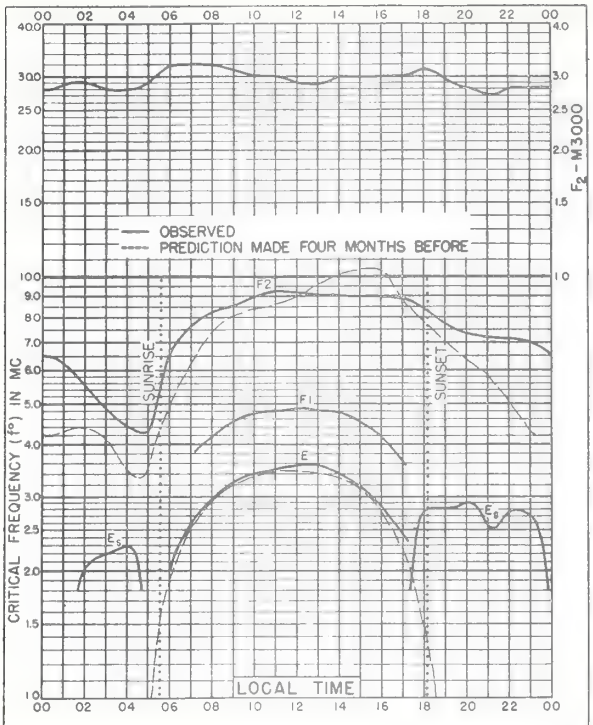


Fig. 66. KERMADEC IS.
29.2°S, 177.9°W OCTOBER, 1945

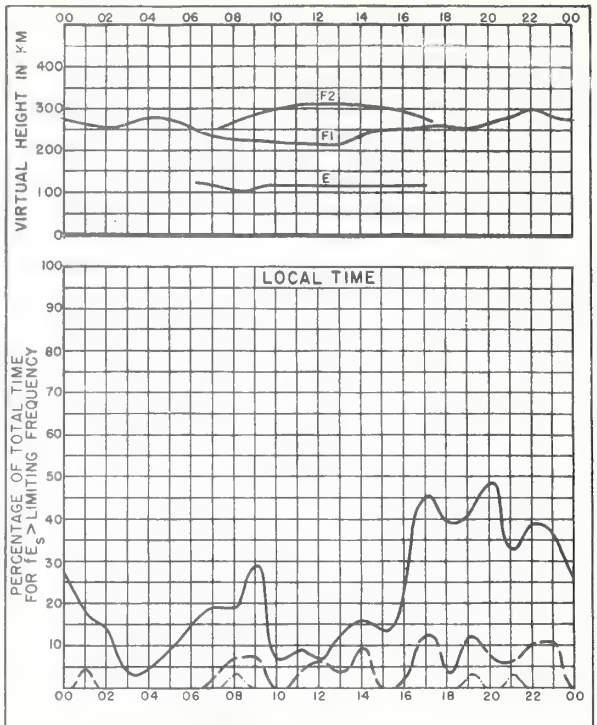


Fig. 67. KERMADEC IS OCTOBER, 1945

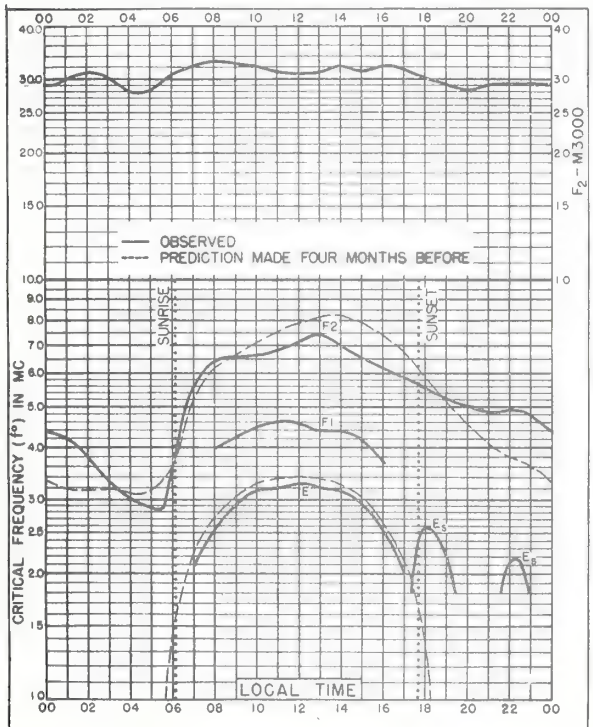


Fig. 68. KERMADEC IS.
29.2°S, 177.9°W SEPTEMBER, 1945

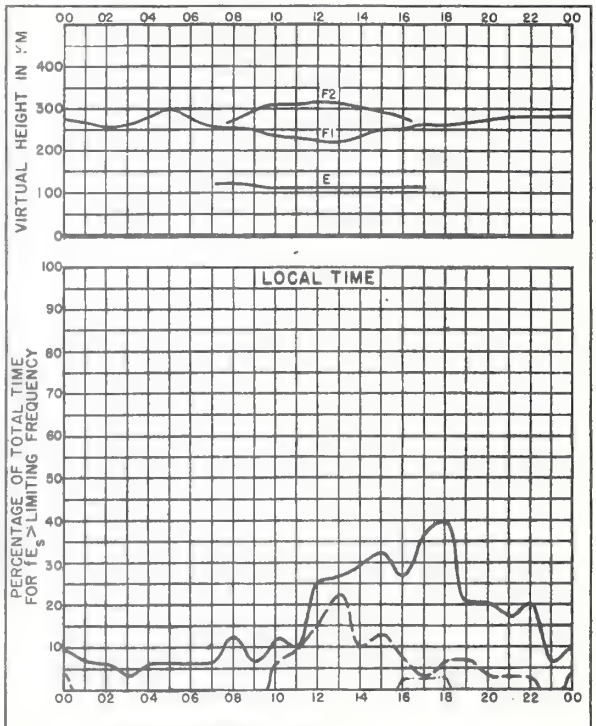


Fig. 69. KERMADEC IS. SEPTEMBER, 1945

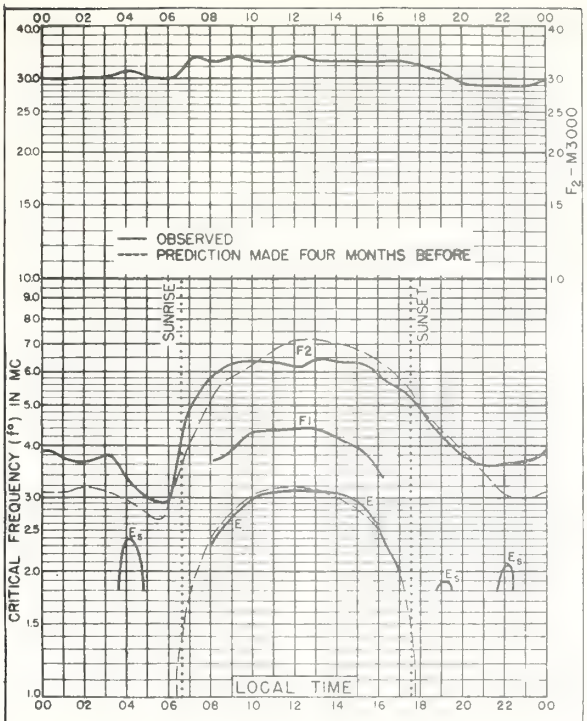


Fig.70. KERMADEC IS.
29.2°S, 177.9°W AUGUST, 1945

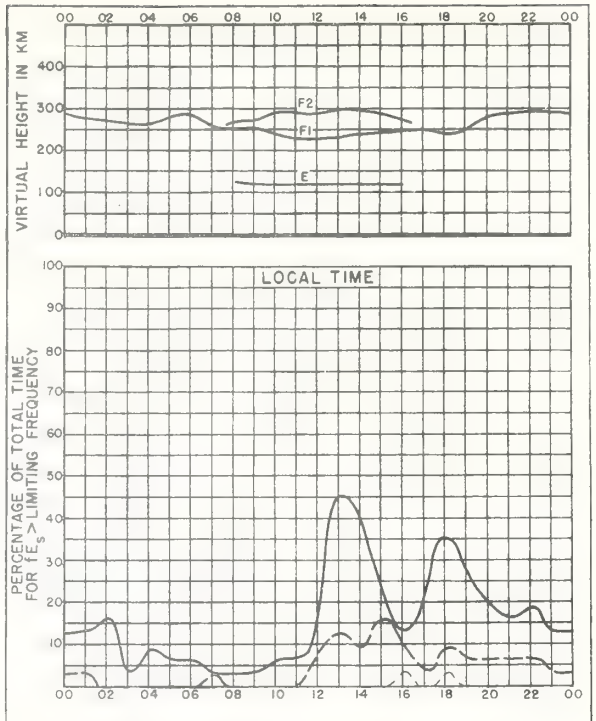


Fig.71. KERMADEC IS. AUGUST, 1945

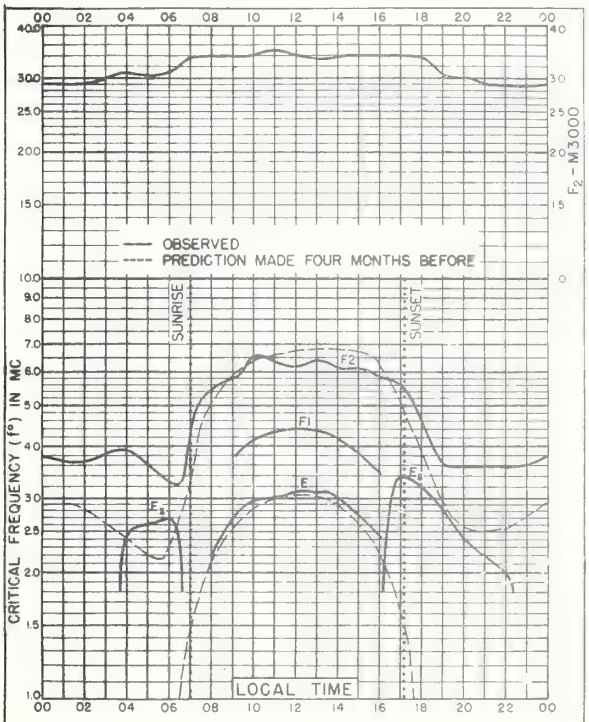


Fig.72. KERMADEC IS.
29.2°S, 177.9°W JULY, 1945

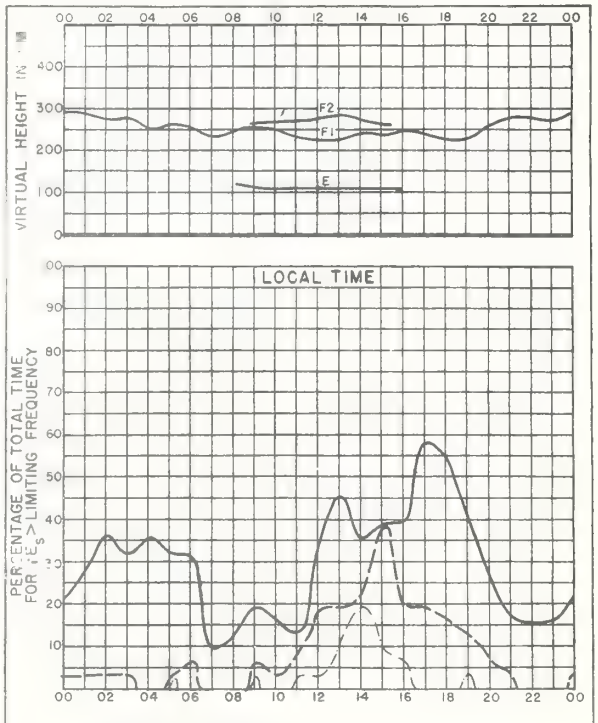


Fig.73. KERMADEC IS. JULY, 1945

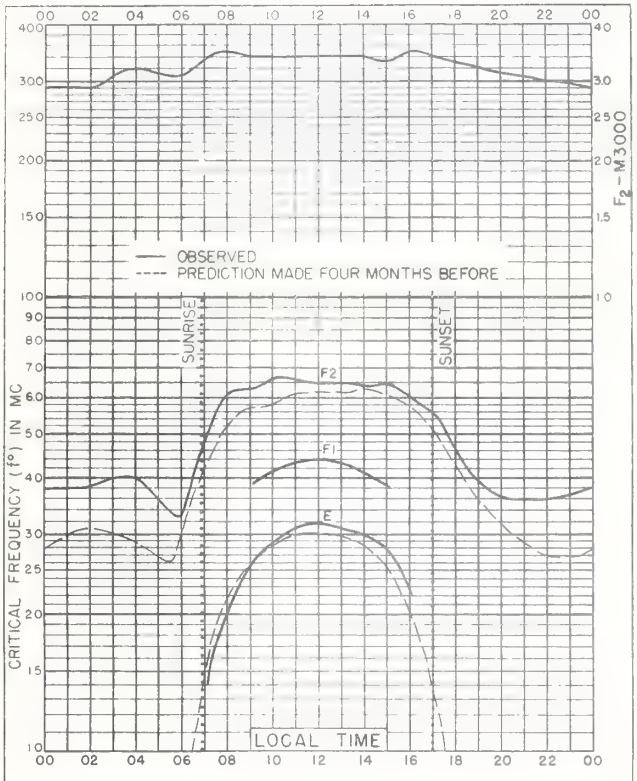


Fig. 74. KERMADEC IS
29.2°S, 177.9°W JUNE, 1945

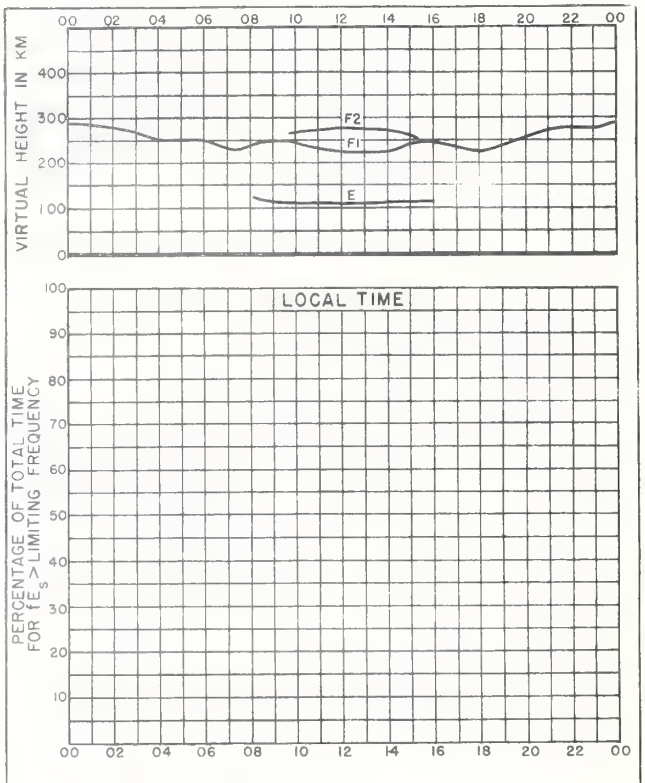


Fig. 75. KERMADEC IS JUNE, 1945

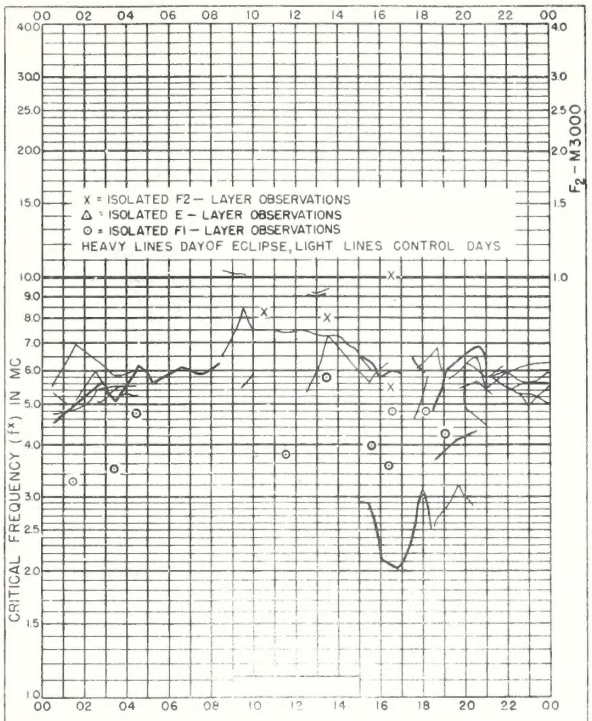


Fig. 76. LENINGRAD, U. S. S. R.
7 JULY THROUGH 11 JULY, 1945

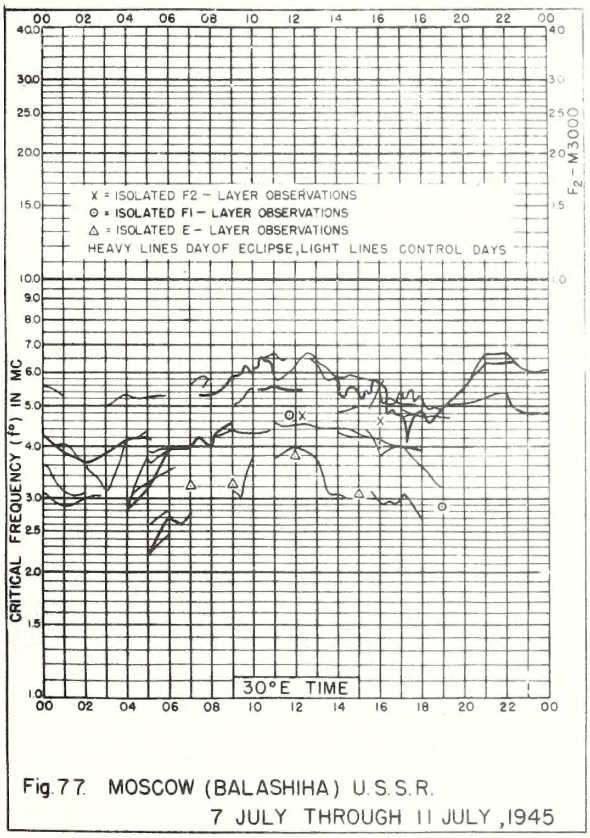


Fig. 77. MOSCOW (BALASHIHA) U. S. S. R.
7 JULY THROUGH 11 JULY, 1945

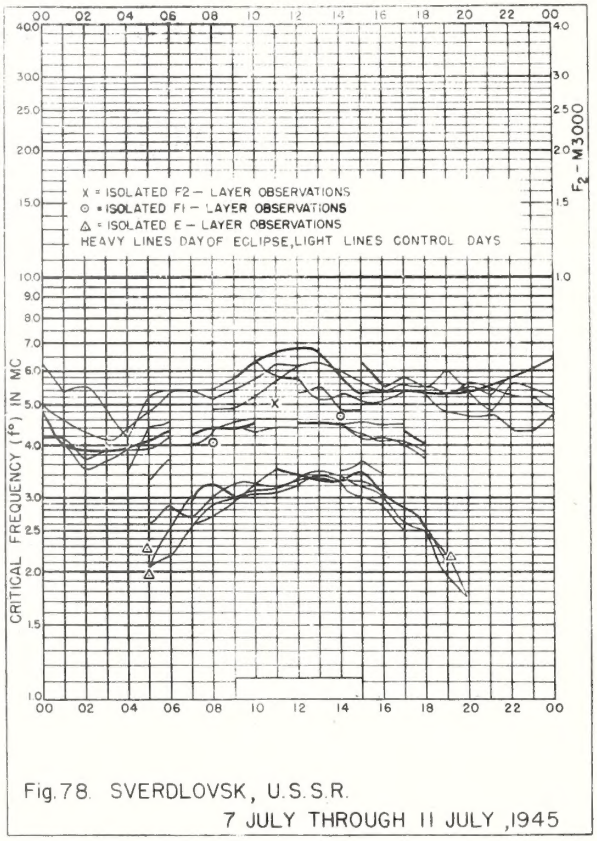


Fig. 78. SVERDLOVSK, U. S. S. R.
7 JULY THROUGH 11 JULY, 1945

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- R26. The Ionosphere as a Measure of Solar Activity.
- R27. Relationships Between Radio Propagation Disturbance and Central Meridian Passage of Sunspots Grouped by Distance From Center of Disc.
- R28. Nomographic Predictions of F2-Layer Frequencies Throughout the Solar Cycle for January.
- R29. Revised Classification of Radio Subjects Used in National Bureau of Standards (N.B.S. Letter Circular LC-814 superseding circular C385).
- R30. Disturbance Rating in Values of IRPL Quality - Figure Scale From A. T. & T. Co. Transmission Disturbance Reports to Replace T.D. Figures as Reported.
- R31. North Atlantic Radio Propagation Disturbances, October 1943 through October 1945.
- R32. Nomographic Predictions of F2-Layer Frequencies Throughout the Solar Cycle, for February.
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